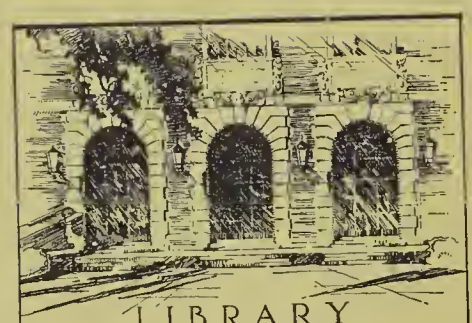


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Vol. 3, No. 1 **August, 1952**

COVER: The Seventh Army on the alert in Germany. *(Department of Defense photo by a Signal Corps cameraman.)*
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★ To the Editors . . . ★

Hazard Pay

To the Editors:

I pointed out over a month ago in a letter to the *New York Times* (most of which they published on 6 May 1952), that extra hazard pay for flying has nothing to do with combat pay. It is paid for the occupational hazard of all peacetime flying and in a war situation for the hazard of training and maintenance of flying proficiency. Combat pay is something else again.

Major General Follett Bradley
66 Poplar St.
Garden City, N. Y.

To the Editors:

Assuming that some of the armed services are to be compensated for hazardous duty, then it seems quite clear that compensation should be proportional to the degree of hazard. *Hazard can only be determined from casualty figures.* The question as to whether non-battle casualties should be considered is one which would involve many lengthy arguments; I am, therefore, by-passing it to remain on the main track.

I do not know what percentage of total casualties were suffered by the Army in World War II; if it were, for instance, ninety-five per cent—then the Army should have received ninety-five per cent of all hazardous duty pay. Proceeding further, if the Infantry received ninety per cent of all army casualties, its men should have been paid ninety per cent of the amount paid to soldiers. If riflemen accounted for approximately ninety per cent of infantry casualties, these men should have been paid approximately ninety per cent of the extra pay given to the Infantry.

Hazardous duty pay should not be paid to a rifleman unless the hazard actually exists; it would be unfair to give the same amount of money to a rifleman in combat six months and to another who is still training in the U. S. This presents quite a problem, as we cannot determine in advance the amount of hazard to be encountered. If Congress were to appropriate a certain amount of money for hazardous duty pay, this could be equitably divided at the end of the fiscal year according to a workable formula; a formula would be needed because casualties might be small in that fiscal year and certain individuals would receive more than others who would be in service in a year when casualties were high. I hesitate to offer a formula since I do not have the statistics to prove what is reasonable. But as an example:

A rifleman in combat fifteen days is entitled to one hundred dollars provided that the casualties in his regiment exceed a certain percentage; he is entitled to fifty dollars if the casualties are a certain percentage less. All other individuals are paid according to the number of days they are in a hazardous occupation and according to the percentage of casualties suffered by their organization during that time, provided that percentage is above a certain figure. In other words, the rifleman is the basis of all computations.

Thus, it can be seen that in some years the amount appropriated by Congress would not be entirely spent, while in others it would be necessary to raise additional funds.

I fully realize that there are many objections to the above, but I have no doubt that the administrative details could be worked out on a sound mathematical basis with a minimum of paper work.

I was 20 years an artilleryman before I enrolled for the Infantry School's advanced officer class.

Col. Alfred W. DeQuoy
Commanding Officer
182d Infantry C.T.
Brockton, Mass.

To the Editors:

I must disagree radically with Colonel Standish's article, "Uniform Hazardous Pay," in the June issue. Apparently, the Colonel wants only the men killed or permanently disabled in combat to get hazardous pay. To be sure, any soldier killed while unloading QM supplies in Pusan has had more hazardous duty than the rifleman who somehow gets through twelve months' combat time unscathed, but pay according to that standard is an incentive to join the QM, not the Infantry.

There are existing laws to protect men disabled in combat as well as free life insurance to protect their families. The adequacy of these laws is not part of the incentive pay problem. Incentive pay should be given for risking one's life, not for losing it.

There are many men who will risk their lives for $100 a month by jumping or flying in an airplane. There are thousands more who join units that take seventy per cent of all casualties for no extra pay whatsoever. The reason for incentive pay is, as I understand it, to increase these thousands to more thousands by offering them pay for joining the more dangerous units. These men will not try to get themselves killed, regardless of amount of incentive, but they are willing to gamble with the odds for about $50.00 a month.

Why not set a sliding scale of payment? Pay 100 per cent for the most hazardous duty and a percentage of it for less hazardous duties, as follows:

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No Pay—Regimental service companies, light AAA headquarters battery, all artillery service batteries and administration personnel at division rear.

Capt. Donald N. Gower
Fort Bliss, Tex.

DRILL

We have received a letter from our long-time friend, Colonel Robert F. Hallock, referring to his article, "Drill," in our March issue and to a letter in the June issue which comments on his article and objects to the expenditure of much time on parade ground ceremonies and similar activities.

Colonel Hallock's article was written in central Korea, where he had been commanding the 24th Division Artillery for some months, and it seems probable that he hadn't been much involved with formal guard mounts and escorts of the color. The writer of the June letter adhered to the FM 22-5 definition of drill, which is a very narrow one, while Colonel Hallock, of course, was emphasizing the importance of the old rule that "practice makes perfect" in all kinds of activities. Here we are, involved in semantics again. But certainly we can never overemphasize the importance of thorough training in the fundamentals of all of the many military specialties.

The Editors.

Bellyful of 'Bellyful'

To the Editors:

I have just read, and with much disgust, Sergeant Harry Ryson's letter "Bellyful" in the June issue.

I must admit that I was surprised at the Sergeant's attitude toward the Army. In my opinion drill, inspection, retreat formation, etc., *is* the Army. If we didn't have these, the Army might just as well not be. Without control and a bunch of undrilled soldiers you have a mob, nothing else. But, the Sergeant being a USAR soldier, doesn't understand this. My advice to him is to get out if he doesn't like the Army. The Army would be better off without men like him.

Also, a salute to Colonel Robert F. Hallock who asks for re-establishment of drill. We can sure use more of it regardless of *what* type unit a man is in. Sergeant Ryson is all wet when he says enlisted men have no pride in their unit. He should see the 1st Infantry Division as



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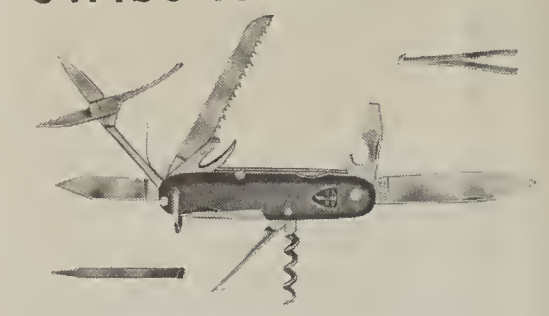
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well as other units over here; they are full of pride and the men take pride in the units.

CPL. RICHARD N. BENSON
APO 1, c/o PM
New York, N. Y.

• See the Editors' comments in box on page 2.

Up with Razors

To the Editors:

". . . you would not have a soldier in the field not to look rough . . ." This statement by General Lee from Dr. Freeman, says Lt. Col. Trussell in April's Cerebrations, is "the secret of success in combat."

That, without doubt, is one of the most amazing statements this writer has ever seen a military man make. Apparently the Colonel has not served too recently in combat with troops, and he most certainly has never served in the most northern climes of Korea.

After a fairly extensive tour in a rifle company in Korea, I can say there is absolutely no correlation between the amount of hair a man possesses on cranium, chest or chin, and the amount of raw unadulterated guts he possesses under such hair.

Funny thing, but only one of all the Medal of Honor winners in Korea had a mustache. That hard-charging, bayonet-wielding Captain was photographed for publication wearing a mustache—and I'll wager that he does not sport that handlebar Stateside.

Many of these peerless fighting men have very young, clean-cut faces whose cheeks are tarnished by blades perhaps weekly, and then only to scrape off a little fuzz. Not many men have heavy beards at seventeen, eighteen or nineteen, but was it not General Marshall who said that this age is the age of the real American fighting man? And many men of this age bracket have seen much heavy fighting, no matter how light the beard.

Let's face it—we are not "dapper Frenchmen," or "British Guards"—we are American gravel-crunchers.

The barefaced fact remains that morale in a frontline rifle company leaps up when the men can take a break from killing off Gooks to wash up and shave off scurvy, scraggly beards.

Is the Colonel really cerebrating or just plain old-fashioned joshing?

LT. WILLIAM JOSEPH DAVIS
USMC
Washington, D. C.

• Just joshing, we'll wager.—THE EDITORS.



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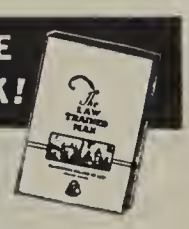
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To the Editors:

The Army is very fortunate that William E. Reneau is an "ex-dogface."

SGT. GEORGE C. KINSLOW
USMC
c/o Fleet Post Office
San Francisco, Calif.

To the Editors:

Just where does Reneau get the title, "Seagoing Bellhop?" If he has ever been in combat—which I doubt—he would be glad to have those "Seagoing Bellhops" around.

This will come as a shock to you, "ex-doggie," but look up the facts before you start running off at the mouth about the battles the Army and Marine Corps have fought. We know enough about the Army now. We know a few things that I'll bet you wish we didn't know.

CPL. NORMAN L. GRIFFIN
CPL. JAMES N. FICKLE
USMC
"D" Co., 2d Battalion
7th Marines, 1st Marine Div.
c/o FPO, San Francisco, Calif.

• These Marine readers were understandably vexed at Mr. Reneau's strictures in our March issue. We, of course, do not subscribe to Mr. Reneau's opinions but welcome Marine readers.—THE EDITORS.

Keep that Powder Dry

To the Editors:

In your April issue Major Kerr's expressed "horror" at the post-firing destruction of surplus field artillery propellant increments by burning is understandable to a degree. Every new "Redleg" has no doubt been astonished at this seemingly brazen waste of government property. However, as he studies and practices the techniques of gunnery and ammunition supply, and becomes familiar to some extent with the problems of the Ordnance in manufacture and handling of artillery ammunition, he comes to realize that the long-time practice of not retaining the surplus increments, stems directly from one



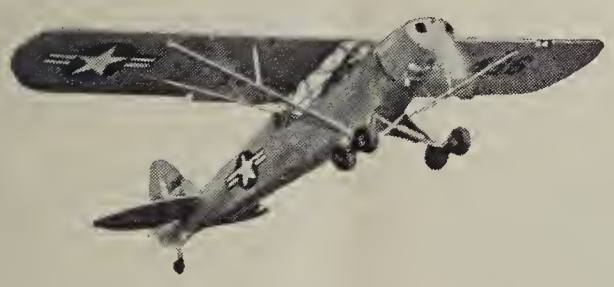
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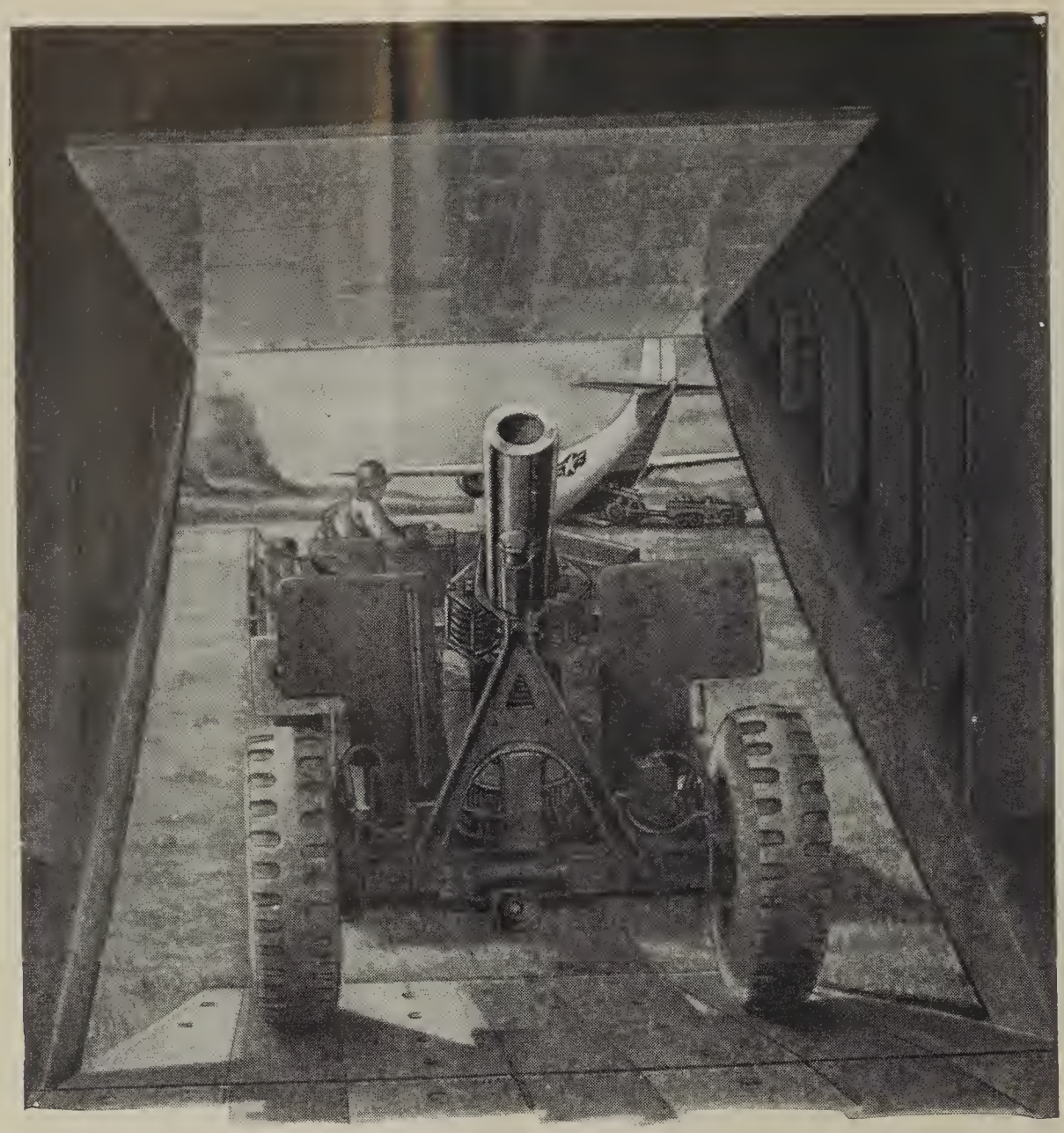


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fact; that uniform accuracy of fire must be obtained by every means possible, or else the effect of artillery against the enemy will be largely nullified while the hazard to our own forward elements in combat will be dangerously increased.

In these days when many think that we must all forget that we're wearing different-colored stripes on our pants (figuratively, of course), I'd like to say that were I commanding an infantry regiment in combat, and were Major Kerr's battalion of artillery trying to support my unit with any "rule of thumb" gunnery, or jerry-built powder charges such as he proposed, I'd squawk like the devil to the division commander.

I recommend that the Major consider a detail in the Ordnance, where he might dedicate himself to working out a method of saving all this surplus powder without detriment to the combat efficiency of the artillery and the safety of the infantry.

Col. Charles W. Raymond, 2d
Army Language School
Presidio of Monterey, Calif.

CIB

To the Editors:

I don't see how the Combat Infantryman Badge is being disgraced, when awarded to drivers, cooks or clerks. My job as a cook is no less hazardous than "Joe's in the foxhole." My duties call for rear area work, which is in enemy range. I believe by doing my assigned duties I am earning the Badge. During enemy engagements, being in a rear area echelon does not release me from duty as a rifleman.

There should be no such distinction made between the riflemen and drivers, clerks or cooks of a rifle company. We are here defending the same cause and the distance from the enemy does not determine the difference of a soldier.

Sgt. Al Laschiazza
APO 6, c/o PM
San Francisco, Calif.

Backsliding

To the Editors:

I enjoyed reading "Quicker Brackets Guaranteed" in the May issue, adapting the old ranging-round technique to modern target grid shooting. (Wasn't it the Austrian artillery that developed the technique of firing an initial battery salvo with a range and deflection spread between pieces?) Anyway, the method sounds good and, with a good observer and decent terrain, there seems no reason why it shouldn't permit entering fire for effect much sooner than usual.

However, my enthusiasm for the system is somewhat qualified inasmuch as I believe it leans in the direction of violating a basic principle. I think the "'yardstick" value of two rounds 400 yards apart has been overstated. As a means of etching a range scale on the terrain, it is better than a normal 400-yard bracket in that the

(Continued on page 11)



New Marine Jack-of-all-aircraft—Latest addition to the helicopter fleet of the U. S. Marine Corps is the Sikorsky HO5S, now being delivered in substantial quantities.

This is the third type of Sikorsky helicopter to be used by the Marine Corps which has pioneered many revolutionary combat tactics with helicopters in actual combat in Korea.

This type, also in service with the U. S. Army Field Forces, is a four-place development of the earlier Sikorsky S-52, holder of the world's speed and altitude records.

In service with the Marine Corps, the new HO5S helicopter is expected to be of great value as an observation-liaison aircraft and for evacuation of wounded and trapped men.

SIKORSKY AIRCRAFT

BRIDGEPORT, CONNECTICUT

ONE OF THE FOUR DIVISIONS OF UNITED AIRCRAFT CORPORATION

Comment for the Combat Forces

Still Not Equal Justice

THE new combat pay law gives the Army fighting man $45 per month—while he is in combat.

This action by Congress, after far too many years, at least recognizes the great hazards of the ground combat fighter. But the law as passed and approved is still unjust to the ground fighting soldier and to the marine.

It plainly implies that he is a second-rate fighting man—as compared to a flyer or submariner.

It implies that his battle risk is less, when everyone knows it is greater.

The $45 a month for the ground fighting officer and enlisted man is pretty small when you put it beside the $100 to $210 of hazardous duty pay the flyer or submariner gets. But that's not so important.

What is important is the idea in this law that the men who fight on the ground are somehow inferior in bravery or technical skill, either or both, to the men who fly through the sky or sail under the sea. And that being second-rate, they do not deserve as much pay.

You may say, and rightly, that Congress didn't mean to say that the man who fights on the ground is inferior. But intentions are not important here. The action says it, even if no one intended to say it.

How else can you or the American public interpret it?

By law, a second lieutenant of the ground arms, weeks on end in direct contact with the enemy, now earns a special award of $45 per month.

By law, an Air Force second lieutenant on flying duty, gets $100 per month—*whether or not* he flies into battle.

Which man, by law, seems to be set up as the superior fighter?

By law, a colonel leading 3,000 men into battle—for long days of hard, vicious, bitter, unrelenting ground combat in miserable conditions—gets $45 per month for *his* special award.

And by law, what does a flying colonel get for flying, even with the nearest enemy 10,000 miles away? His extra award is $210 per month.

So which of these, by law, appears to be set up as the superior combat leader!

The West Point class of 1950, to take one group, has suffered grievous loss in Korea. But how do you think surviving ground fighting officers of that class feel when they know that their pay while in combat in Korea is $75 a month less than their classmates who happen to be flyers? What else can they think except that their Government considers them less important or less skillful than their own flying classmates?

As the COMBAT FORCES JOURNAL said in these columns last month, we believe in absolutely equal rights and treatment among the combat arms and services.

The pay tables say there is a difference.

The pay tables say there is a $45—or $75—or a $165 difference.

The pay tables lie.

As we said last month (and as we'll keep on saying) your Association and your JOURNAL believe in absolutely equal rights and treatment among the combat arms and services.

The laws as they stand are discriminatory.

The laws as they stand are unjust.

The laws still establish a false priority, a completely untrue distinction, between different kinds of fighting men.

All fighters, air, sea and ground, deserve the best the country can give them.

But of them all, the Army man has the greatest risks, the heaviest responsibilities, and the worst conditions of combat. If any one type of fighter *deserves* a greater reward, it is the Army combat soldier.

But what we urgently seek is not a superior but an equal status—in the eyes of the law—in the eyes of the country.

Soldier

JAMES W. WADSWORTH wore the uniform of the United States Army for only a few months in 1898. But during forty-five years of public service after that, he continued to be an American soldier in every respect but uniform. He fought constantly and intelligently for the best interests of the Army, Navy and Air Force, believing that it was essential for his country to be militarily strong.

Jim Wadsworth spent thirty years advocating universal military service. And, as General George C. Marshall testified in 1950, if his 1920 bill for universal military training had become law there probably would never have been a Second World War or the menace of a third one.

A check list of his efforts in direct support of the military services would show that in addition to his never-ending work for universal service, he voted for the Naval Expansion bill of 1938, fought against the Arms Embargo in 1939, was instrumental in gaining Republican support for the Selective Service law that passed by one vote in 1941, supported the North Atlantic Pact, and served as a member and chairman of the National Security Training Commission. Yet these are only the highlights of Jim Wadsworth's constant, realistic, yet ever gentlemanly fight, first as Senator and then, for long, able years, as Congressman Wadsworth of the State of New York.

His death has taken another stalwart from the ranks of those who believe—on the carefully considered evidence—that the best interests of the Unites States are served by supporting a vigorous and strong military establishment. And believing that, fought for it.

He was a soldier.

"Third Man"

WE have had a lot of letters on Colonel Standish's "Crisis in Courage" articles, and most of them were favorable. In his first article, you will recall, Colonel Standish argued that we have more "nonfighters" today than we had during the First World War and the wars that preceded it. To reverse the trend he advocated better rearing and education of our children, to increase their "mental stability limit." Then more of them would fight instead of hiding when the going gets tough.

Colonel Standish was, of course, looking at the problem as a combat leader who had seen American soldiers disappear in battle and reappear unscathed when the shooting was over. But Colonel Standish recognizes that the problem is more than a purely military one (or a purely medical one to be investigated and solved by the social scientists and psychiatrists) and that it is affected by the hopes and fears and the way of life of American society and the trend of western civilization.

As it happens, a thoughtful and lucid examination of the problem at this higher level recently appeared in *The Saturday Review of Literature*, written by Edgar Ansel Mowrer. It is Mr. Mowrer's thesis that the world's two forms of societies—barbaric and civilized—produce two different kinds of men.

Barbarian societies produce what he calls the "Type One" man—a fellow whose "characteristics are personal cour-



300 Mile Hike

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Battle-proved to deliver dependably—with or without an airfield—rugged and versatile for any combat assignment, the Fairchild C-119 lives up to its designers' intentions, giving speed, stamina, and utility under toughest conditions. That's why the C-119 is number one all-purpose transport for military airlift operations of the UN forces in Korea, in Europe and in the United States.

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age, a strong sense of tribalism (the earliest patriotism), and native aggressivity. He accepts physical combat, physical injury, and death as things in the established order of nature. He kills readily—sometimes for power and plunder, sometimes in self or group defense, sometimes for pleasure—but always without reluctance or remorse."

Then civilization comes, and at "some point Number One man has become Number Two man, a fellow who, for a variety of reasons, noble or ignoble, will no longer fight."

Mr. Mowrer thinks the "North Atlantic Community of 1952" is "increasingly dominated by Type Two citizens" and that we Americans are mostly Type Two, too.

He quotes Hanson Baldwin as writing that in World War II Americans "did not have, in the bulk, the stomach for fighting or the heart for fighting, possessed by our enemies or possessed, for that matter, by the Russians." Then Mr. Mowrer comments:

"Baldwin does not mean that there are not still among us millions of born fighters or that Americans, when intensively trained and once aroused by attack, do not fight bravely and well. His point is, they do not fight as eagerly as some other peoples—or as their own ancestors. The air gunner from Denver may kill a lot of Germans. It stands to reason that, other things being equal, he will not kill so many as the Pole who 'wants to kill every German in the world.' The major instrument of war is inflicting death on the adversary. Ilya Ehrenburg's wartime exhortations to 'kill Fascists' met a far greater response among the peoples of the USSR than General Ridgway's injunction to the U. N. forces in Korea to 'kill Chinese.' The Russians *hated* the Germans. The U. N. fighters, by and large, do not hate the Chinese Reds.

"I believe that, as things stand today, most Americans *dislike war* before, during, and after taking.

". . . The conclusion is unavoidable: if the tag of Type One man is his ready acceptance of armed struggle, then presumably the United States, along with most of the North Atlantic community, already consists predominantly of Type Two men."

Is the solution then to reverse ourselves and try to create more Type One men? If we embarked on such a program of Spartan living and flag-waving patriotism "within a generation the United States will be a warrior nation. For it will again consist overwhelmingly of Type One people."

But Mr. Mowrer objects to this solution and doubts if it would succeed. In the first place an "America first" policy "would so affect adversely our friends abroad that we should have to conquer our allies, as well as our enemies." And in the second place, "deliberate reversion to Type One man (supposing it can be done) leads today to totalitarianism. . . . In becoming a giant hedgehog, the American people would have to sacrifice the personal freedoms that make our society most worth defending. We should have transformed ourselves into the image of the thing we are opposing."

Mr. Mowrer's solution is to create a Type Three man—a fellow who now does exist in small numbers, he says. These Type Three men are "courageous yet compassionate, resolute yet gentle, highly individualized yet public spirited, at war with evil yet inwardly at peace with man. While deploring violence they are serenely ready to meet force with superior force. They know that fighting is a lesser evil than submission or martyrdom. Therefore, they can, when necessary, drop an A-bomb, regretfully but without remorse. For, as champions of freedom and law, they are able to act decisively on the basis of a fifty-one per cent preference."

To produce more Type Three men we shall have to develop more "positive" educational methods than we have at present, "particularly at lower levels," Mr. Mowrer says.

"It would value liberty above personal security, courage above caution, duty above rights. It would, within limits, consciously stimulate adventure and rewarding of risk. Above all, it would aim at keeping the West conscious of the unique quality of its values, and stimulate the will to keep them.

Mr. Mowrer recognizes that "our best professional officers—Army, Air, Navy and Marine" come close to meeting these requirements. They, he acknowledges, "habitually manifest an indomitable devotion to patriotic duty. 'Ike' Eisenhower manages both to command our greatest armies and to hate war as much as any pacifist."

But Mr. Mowrer wants the Third Man to go a bit farther than he thinks the military man does. He sees him "not only a citizen selflessly devoted to duty but a visionary planning a better future."

The distance between Colonel Standish and Mr. Mowrer isn't great. Both believe that we must "stop . . . 'disarming the minds of our youth,' and strive rather to steel them . . ."—as Mr. Mowrer put it. Colonel Standish would steel them for battle and Mr. Mowrer not only for battle but "in a new and finer way."

Both are moving in a direction we must go if we are to survive.

Military Socialism

CREEPING socialism is an insidious thing, rightly deplored by all patriotic politicians—the ones you may dislike as well as the ones you like. But where do you stand on *military* socialism? Never heard of it?

Well, neither had we until we read a piece in the current issue of *Ordnance* deploring its appearance in the Pentagon. The author is a great and capable American industrialist and a former general officer of the Army—Robert W. Johnson, Chairman of the Board of Johnson & Johnson, the big bandage and adhesive tape company known for its high place in its own important field.

General Johnson says our military leadership is taking us straight towards military socialism because the Joint Chiefs of Staff and the Pentagon Secretariat don't consider the burden on the taxpayers when they tell what is needed to defend the country.

Surely General Bradley will be surprised to learn that he is leading the country into socialism. We have personally heard him, time after time, explain over and over again to the public how the Joint Chiefs of Staff are troubled by the growing public debt and constantly search for ways to reduce military expenditures. In practically every public conference since he first



was Army Chief of Staff, General Bradley has invariably shown how much in mind he holds the economic situation of the country in relation to the great cost of a proper defense. Actually, from a purely soldier's point of view, General Bradley could be criticized for worrying as much as he does about our economic defenses. It is the job of the soldier, by long tradition to lay right on the line the requirements for the defense of the nation, however stiff they may be. Deciding whether the country can afford it is the responsibility of the President and Congress.

But General Johnson says that isn't the way it should be done. Unless, he says, the men in the Pentagon "submit programs to the Congress within the limits of the nation's pocketbook . . . expenditures will become so great that the ideology of the enemy will be forced on the loyal citizens who are giving their all to defeat it."

He wants the JCS and everyone else in the Pentagon to "always think of the 43,000,000 income-taxpayers, the millions of businesses paying profits taxes, and the 150,000,000 excise-taxpayers." If we don't, he warns, we may have military socialism.

The big trouble with this is simply that we can't figure what business the Pentagon leaders have in playing at being economists. That's the job of the Bureau of the Budget. It's the job of half a dozen other federal agencies, executive and legislative. It's also the job of able business leaders of the nation, like General Johnson, and others, to speak up plainly about such things. But not to criticize the military for our heavy taxes. The Pentagon has enough to do figuring out technical military requirements in meeting the great Soviet threat. If the Pentagon was ever to take General Johnson seriously and begin to tell the country what we can spend and what we can't, this country would very probably end up as a military dictatorship.

Soldiers should stick to their proper objective. And economists to theirs. We would really be scared if we discovered some day that the Treasury Department was now making the *military* decisions for the defense of the United States. And we would be just as scared if we learned that our generals and admirals were making the economic decisions.

If this country ever has military socialism it will be because the civilian agencies of the Government fail in their performance. Not because military men maneuvered their way to power.

TO THE EDITORS

(Continued from page 6)

rounds land close together in time and the bracket limits are defined almost simultaneously. However, the location of the target within that bracket will not be known much more accurately. Therefore, an immediate jump into fire for effect will be little more justified than it would be in the case of a 400-yard bracket established in the normal manner. Of course, if the ranging rounds were fired closer together, e.g., 200 yards, fire for effect might be possible on the second volley, depending upon the area of the target. (However, paragraph 80a (1), FM 6-40 says "Fire for effect (in area fire) generally is not called for until a bracket of 100 yards or less is split.")

It seems to me we're backsliding from the one fundamental principle of conduct of fire, viz., bracketing. After all, a leap into fire for effect on a target 50 or 100 yards in depth from a 400-yard bracket is sheer guesswork unless it's done by an experienced observer on ideal, familiar terrain. It's no good to say that fire for effect should be entered *only* when the observer can accurately gauge the distance from one limit of the bracket to the target. The rub is that he often *thinks* he can when he can't. There is only one sure way—get a bracket of the proper size.

I thought we had our fingers properly burned on that beautifully descriptive command RANGE APPROXIMATELY CORRECT which was permissible in bracket (area) fire at one time. I've forgotten the exact words in the manual, but roughly it said that if you got a round close enough to the target to indicate that fire for effect would probably fall on the area around the target, you could enter fire for effect without a bracket. How could you tell it was close enough? The truth was that you couldn't unless you bracketed the target. Many officers *thought* they could and many tried, to their sorrow, until we did away with the command during World War II for obvious reasons.

Now, again, we're encouraging guesswork by selling this system as one that will often allow fire for effect on the second volley with a bracket no closer than 400 yards. The idea definitely has its merits. It does give the observer a yardstick on the OT line which is helpful as a means for narrowing this bracket more quickly. And it will often establish a bracket around the target in one volley instead of two or more volleys. But, let's not mislead some poor observer into believing he's going to have much success at "accurately gauging the distance" from one limit of the 400-yard bracket to the target and entering fire for effect at once. He'll do it often, sure, but what of the times he misjudges? If he'd fired one more volley and obtained a proper bracket he *couldn't have missed.*

CAPT. WILLIAM R. ENGLISH
Fort Bliss, Texas

Handguns

To the Editors:

I have been rather amused at the discussion in your columns as to the comparative merits of the caliber .38 handgun versus the .45 automatic (or revolver).

The .45 was developed because the old .38 was in no way comparable to the present ".38 Special." The old cartridge was about equal, I believe, to the present-day .38 short in power.

If a handgun is wanted which is really effective and has a wide range of capabilities, I would suggest that the services buy and issue the .357 Magnum revolver. Its cartridge is well adapted to use in a short (carbine-type) rifle. I have personally fired such a weapon and it is worth carrying into combat. If the .45 pistol or revolver is such a fine weapon, may I be so bold as to inquire why so many soldiers go to so much trouble to get their own personal handguns and ammunition? Personally, I have a .357 Magnum (3½-inch barrel) and a .38 Special with a 2-inch barrel that go where I go. Nuts to the .45, and I feel that I can say, for I have qualified "expert" with it.

MAJOR C. D. WHITTAKER
Deseret Cml. Depot
Tooele, Utah

Signal Corps Aviation

To the Editors:

This is in reference to "Army Aviation" appearing on page 42 of the June issue of the COMBAT FORCES JOURNAL.

In discussing the Army Aviation pilot training program, the above article stated "At present there are plenty of applications from the Artillery and Infantry. . . . But Armor, Signal Corps and Ordnance Corps are lagging." This statement is in error in that, although we are still accepting applications for aviation training, 42 per cent of the Army Aviators allotted the Signal Corps have completed their training and there is at present a sufficient backlog of approved applications awaiting quotas for training to meet our current allotment. New applications are continually being received and it is not anticipated that a shortage of applications will occur.

This same article also stated that the Signal Corps is allotted only 1 per cent of the Army Aviators. This figure now stands at 9 per cent.

BRIG. GEN. ARTHUR PULSIFER
Asst. Chief Signal Officer
Dept. of the Army
Wash. 25, D. C.

- Our information came from the Army Aviation section of Career Management and the Office of Public Information, Department of the Army. We regret the misinformation.—THE EDITORS.

When the enemy strikes from the East he will hit the Seventh Army—the strongest military force the free world has in Europe today. Its men are of the highest quality, its officers professionally competent. Given modern arms it could grievously hurt the aggressor.



LT. GEN. MANTON S. EDDY
CG, Seventh Army

MAJ. GEN. WITHERS A. BURRESS
CG, VII Corps



THE "big picture" in the defense of Europe is best seen at SHAPE. The "little picture," in which the defense of Europe is interpreted in terms of blocking a road or defending a ridge, comes alive only in Germany, and then only if you leave the prosperous cities of western Germany like Düsseldorf and Munich and move eastward to the flat, misty plains in the north or the knobby hills and shallow valleys in the center and south.

If war comes, this is where the first blow will fall.

The defense of this front line rests mainly on the United States, British and French armies with attached formations from other nations. The largest, most experienced and best trained of these armies is the American Seventh Army commanded by Lieutenant General Manton S. Eddy.

The Seventh Army with its parent organization, the European Command located at Heidelberg, is the basis of American strength in Europe. Unlike the British Army of the Rhine or the French Army of Occupation, the Seventh must fight any opening battle with what it has in hand; it cannot expect quick reinforcement. The British and French forces in Germany may be considered within the pattern of the overall defense effort of those countries. The American forces form a self-contained unit, thousands of miles from their bases in the United States.

The terrain which the Seventh Army would defend and on which it would have to meet any Russian attack is difficult. It is rough, broken by stubby hills and heavy forests. Its eastern perimeter is a mountain wall that runs northwestward along the border of Czechoslovakia, writhes westward at Hof where the frontier of East Germany begins, and then turns northwestward again to meet the border of Lower Saxony, in the British zone, at Eichenberg.

[If the Soviet strikes] we must expect three main attacks into West Germany at the very least: one in the British zone across the north German plain; one in the center, between the Army of the Rhine and the Seventh Army, pointed at Kassel and the autobahn running south toward Frankfurt and the Rhine; and a major effort in the American zone with the main thrust aimed through the Fulda Gap plus smaller drives through Plauen and across the Czechoslovakian border farther to the southeast.

All these attacks will be preceded by intensive bombing, covered by a numerically superior fighter air force and pushed with all the stolid courage of which the Russian soldier is capable. I am not trying to emulate Dickens' fat boy and make your flesh creep. These are the facts we must accept, face and defeat.

The bright side of the picture lies in the fact that nowhere in Germany, indeed nowhere in Europe, is the defense picture better than in the United States zone.

Two years ago the United States ground forces in Germany comprised the 1st Infantry Division and the Constabulary, in all about 41,000 men. At the time when the Chinese had thrown their weight into Korea and when it seemed as though the Soviet Union might try to make another Korea out of Germany, America was virtually defenseless in one of the key areas of the world. This is no longer true.

Today the Seventh Army is composed of the 1st, 4th, 28th and 43rd Infantry divisions, the 2d Armored Division and the Constabulary, a combat force, counting divisional and corps troops, of about 150,000 men.

Men and weapons are not enough.

DREW MIDDLETON

DREW MIDDLETON is Chief of *The New York Times'* European Bureau with headquarters in Bad Godesberg. He has been with the *Times* for twelve years and was a war correspondent during the Second World War. This article is from a chapter in Mr. Middleton's able and informative book: *The Defense of Western Europe.*

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MAJ. GEN. JOHN E. DAHLQUIST
CG, V Corps

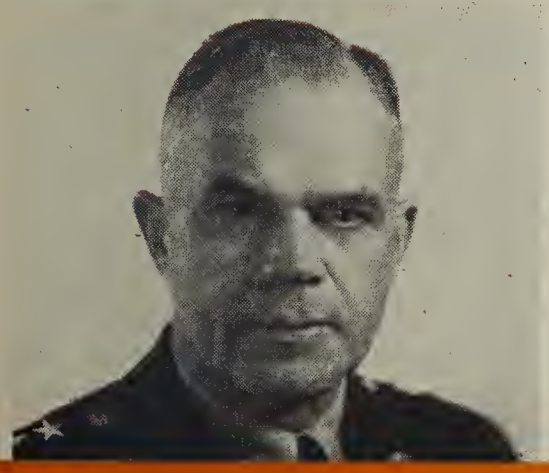


MAJ. GEN. THOS. S. TIMBERMAN
CG, 1st Infantry Division



MAJ. GEN. GEORGE W. READ, JR.
CG, 2d Armored Division

MAJ. GEN. HARLAN N. HARTNESS
CG, 4th Infantry Division



MAJ. GEN. DANIEL B. STRICKLER
CG, 28th Infantry Division

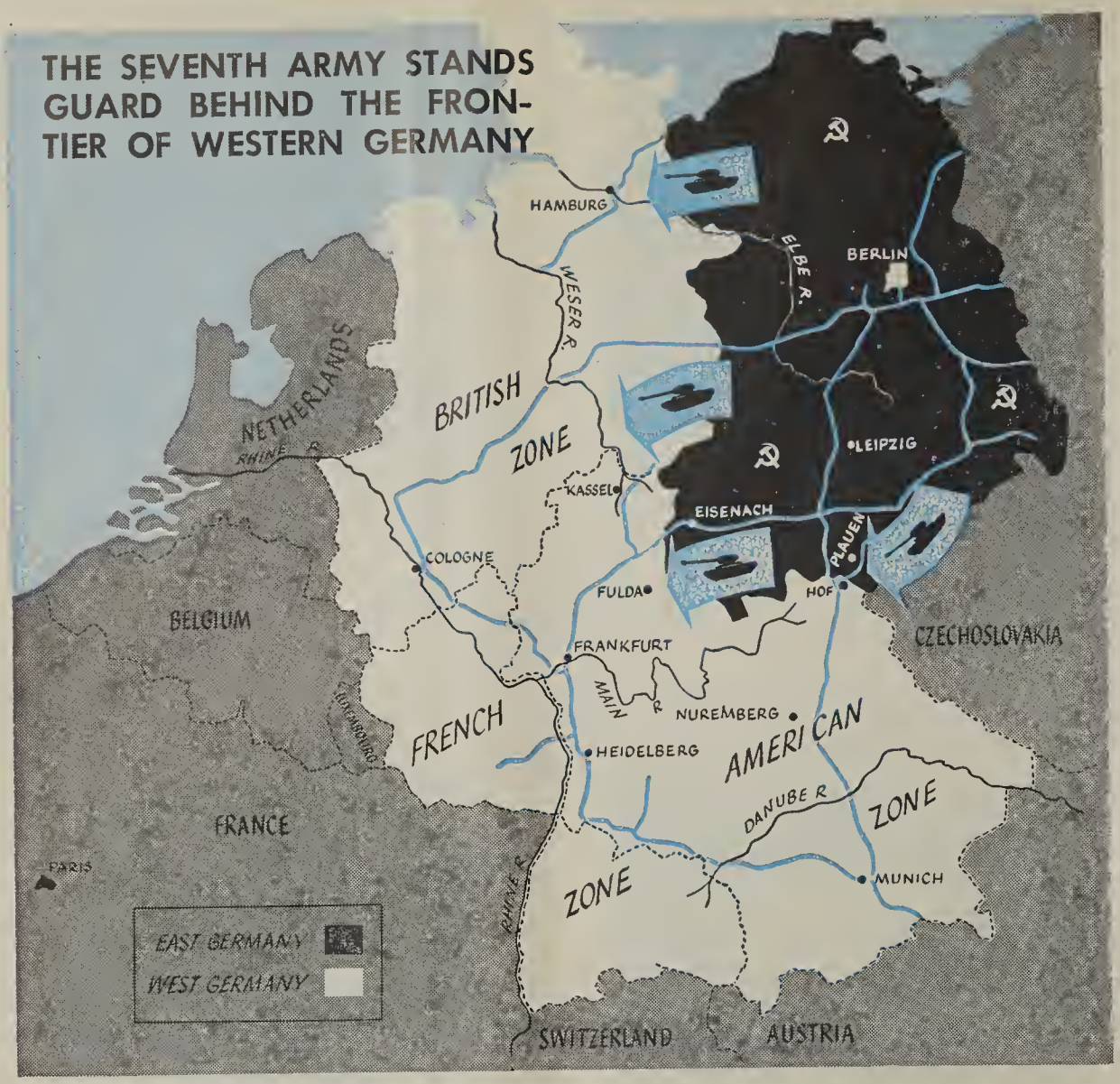


MAJ. GEN. KENNETH F. CRAMER
CG, 43d Infantry Division



The Seventh Army

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Training and morale count tremendously. Here General Eddy and his divisional commanders have done a magnificent job, one too little appreciated by Americans.

When Eddy took over command of the ground forces in Germany—they were not reorganized into the Seventh Army until some time later—he was faced with the task of shaking an occupation army out of its customary routine and putting it into a state of alert.

In view of the life of the United States Army in Germany between 1945 and 1949 this was a sizable task: movies and bingo, dances and Parent Teachers' Association meetings, leaves in Garmisch and spring trips to see the tulips in Holland, bridge parties and bowling alleys. It was all very nice, very comfortable and about the worst and most unrealistic preparation imaginable for service in a situation which might explode into a third world war at any moment.

The troops were smart enough. General Clarence R. Huebner, a strict disciplinarian, had seen to that. But they, like their officers, were immersed in the pleasant round of garrison life, plus the attractions of German girls and plenty of beer, both easily obtainable with the adequate pay of the GI in Germany. There were maneuvers, very important to earnest young officers and worrying to farsighted older officers, but not great distractions to the amenities of occupation life. The army, in its own words, "never had it so good."

This was the routine and this the atmosphere Eddy had to change. Yet he could not change it too drastically because, as he said, "If you get an army all fired up, you can't keep it fired up. You have to have them in good shape mentally and physically but too much alertness is as bad as too little. The edge wears off and the whole thing flops in your face."

His first major step was to put combat troops on the alert in the field or in barracks roughly one-third of the time. The existing field-training system was tightened and amplified. Above all, continuous drills which sent battalions and regiments out into the field from barracks at the sound of a siren impressed upon everyone the idea that someday this might not be a drill, and that the unit and the men that were well trained today would have a better chance of living and winning tomorrow if war came.

Great emphasis was laid on training at the squad, platoon and company level.

Under Eddy, strenuously backed by General Thomas T. Handy, commander in chief of the European Command, the state of training and alertness of the two original Seventh Army units—the 1st Division and the Constabulary—reached a state not seen among American forces in Europe since the end of the war. Patrolling of the frontier areas by the Constabulary was combined with training, and the training cycle for the year was interspersed with frequent unit field exercises, smaller than the annual big maneuvers, which got troops out into the open country much more often.

Regiments just in from such training would halt in the midst of cleaning equipment at the sound of a siren, grab weapons and vehicles and hit the road to take up defensive positions five or six miles away, move from position to position twice and three times a night, and finally return to barracks forty-eight hours later, profanely sure that there "ain't never no rest in this army."

All this upset a lot of the customs hallowed by five years of occupation routine. I saw a mild-mannered major from the Adjutant General's Corps explode when, after a long drive from Nürnberg to preside over a court-martial, he saw the other members of the court, the witnesses and the guards —in fact everyone but the prisoner and himself—take off for the hills as the siren sounded.

"Well, major," said the regimental commander, "if you can guarantee the Russians won't upset your court-martial schedule, I won't upset it."

Morale went up instead of down, as a minority had predicted, largely because for thousands of youngsters this, rather than the interminable round of barracks life interspersed with drinking and wenching bouts, was "the army." Not that the Seventh Army soldier lost his taste for beer or women. He just couldn't devote as much time to them any more.

There were other harassments. The rapid expansion of the army in the United States robbed the Seventh Army of many of its best noncommissioned officers.

Almost since the start of the expansion of the Seventh Army from two divisions to six there have been promises of new equipment and matériel. Some has arrived, most of it has accompanied the three infantry divisions and one armored division that have arrived as reinforcement, but there remains a serious deficiency in medium tanks able to fight the Soviet T-34-85 on equal terms.

The majority of the vehicles in the 1st Division and the Constabulary have been rebuilt at workshops, and their users claim they are "as good as new."

Perhaps this is true for peacetime conditions, but would it be true in war? Communications equipment, especially field radios, is inadequate.

One thing that strikes anyone familiar with the army in Germany is the serious wastage of men on nonessential duties. Listening to the American Forces Network one afternoon, I learned that the program of jazz music to which I had listened was sponsored by the Information and Education Division of the 4th Infantry Division.

Now the I&E has done good work in Europe with its efforts to tell the soldier why he is where he is and what he is fighting for. But does it have to assign men to work out a program of dance music?

THE autumn maneuvers of 1951 revealed some of the strengths and a great many of the weaknesses of the Seventh Army. Involving over 150,000 men, including a French corps and a field regiment of British artillery, Exercise Combine was the largest maneuver to be held in the United States zone since the end of the war.

"Our greatest weakness," Eddy admitted, "was the failure to use passive resistance to air attack."

There were some shocking displays of ignorance of what air power can do in war. Once along the main autobahn, the great superhighway running south from Frankfurt toward Munich, which would be a main artery of supply in war, five gasoline trucks were bunched while their drivers sat by the road for a comradely smoke. Artillery took up positions with nothing between the guns and the sky but a piece of netting naked of the burlap strips that are supposed to simulate trees and bushes. Tanks stood off the road visible for miles, since only a few branches hid their outline. Tanks, trucks and men gathered at crossroads sometimes for as long as a half hour to chew over a problem.

There is some explanation for the lack of camouflage. The United States civil authorities in the American zone warned the army before the maneuvers that the greatest care must be taken not to destroy crops, trees and plants in the countryside. The troops were told that they must not tear up plants or rip limbs off trees to use for camouflage of tanks and vehicles. This order was rescinded midway through the maneuvers but, like many orders issued in the midst of war games, it did not filter down to the troops.

This sensitivity to complaints by the Germans, who up to that time had not lifted a hand to help themselves in rearmament, does not of course explain the failure to disperse troops and vehicles on the roads.

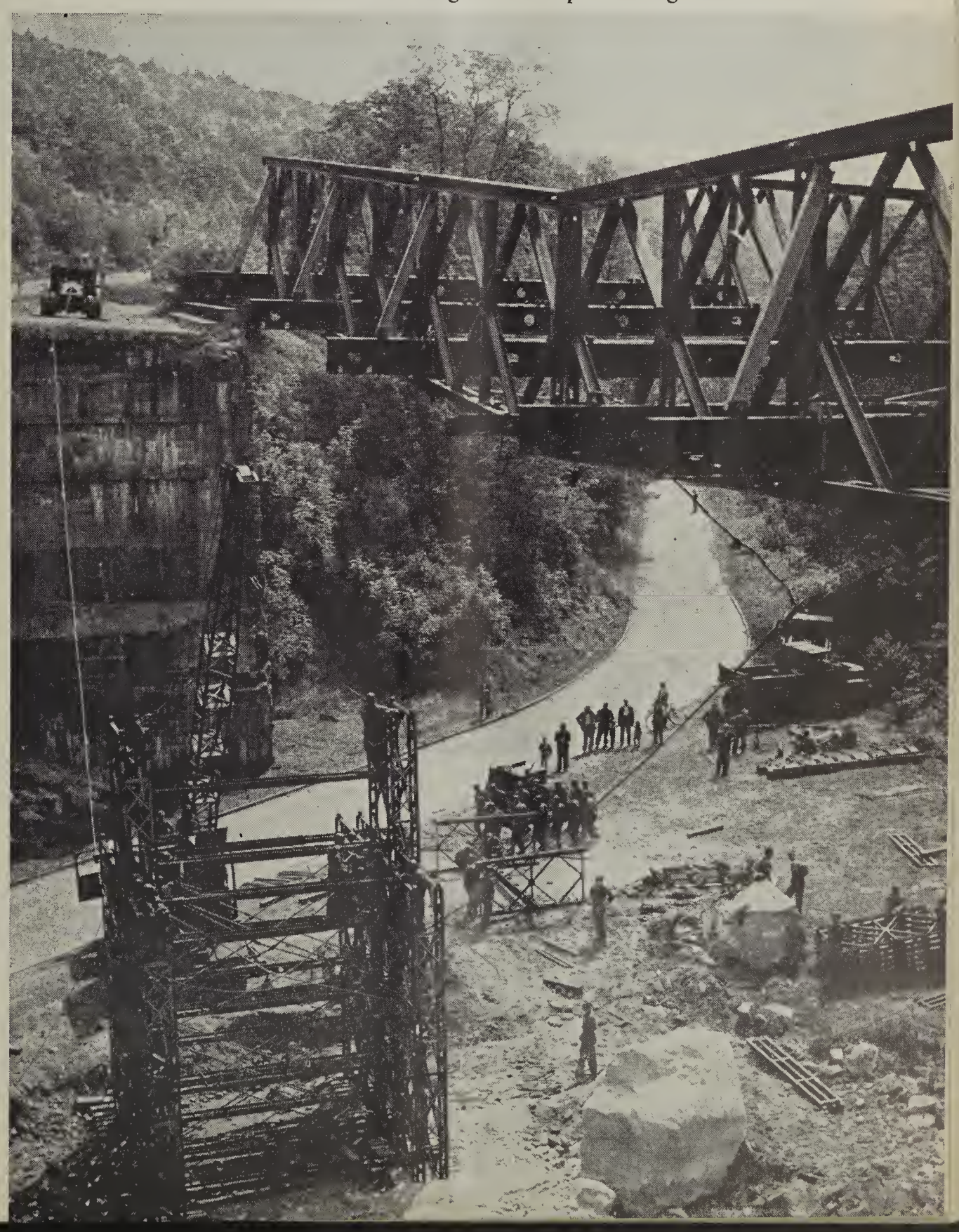
This is terribly important. For in the first battles of any war fought in Europe in the next two years, the allied armies will fight without air superiority. Under those conditions, passive defense is a necessity. One difficulty, of course, is that there are very few officers or soldiers in the Seventh Army who have ever fought without air superiority. Consequently, there is an almost total lack of understanding of what enemy superiority in the air means to ground forces fighting against it.

Despite the repeated warnings, there was a tendency to take partisan activity lightly. The day before the maneuvers ended, a group of aggressor partisans showed up at a gasoline and oil depot far behind the front line of the Seventh Army and destroyed it. This made a few believers out of scoffers, but my impression is that generally there is very little understanding of the confusion, delay and damage that partisans can cause in the rear areas of an army fighting in the field.

Most of the difficulties mentioned thus far are inseparable from any force just shaking down, one that includes a very high percentage of men who have never been in combat. One weakness, however, that of automatically assigning to a machine a job a man might do better and quicker, seems to me to result directly from a national trait, our blind faith in machines.

There was a salient example of this in Exercise Combine. A regimental command post separated by only a few miles from another regimental CP of

Seventh Army engineers push a double-double Bailey bridge across a 230-foot ravine in record time. The 70-ton bridge is two panels high and two wide.



COURTESY OF U.S. ARMY SIGNAL CORPS



Units reinforcing the Seventh Army pass through a staging area at Mannheim before moving on to permanent stations.

the same division sent an important message by wire to the second CP. Since it was important, the message had to be coded at one end and decoded at the other. The whole operation took more than five hours and when the information did arrive at its destination, it was out of date. A messenger in a jeep could have taken the message in clear and delivered it in fifteen minutes.

This is another aspect of a general psychological approach which was very evident during the closing months of World War II when, once a German road block was encountered, there was a tendency to call on guns, tanks, and air support to eliminate it; in other words, to rely perhaps too heavily on machines. The result was delay, which of course was what the Germans sought, and it seemed to me then, and does now, that we delayed to save half a dozen lives on one day, only to lose two dozen on another because of the delay.

The United States Army, moreover, is just as susceptible as the Russian Army to inordinate worship of the tactics that won "the last time." During both the American and British maneuvers in the autumn of 1951 there was a tendency for armored commanders of the Seventh Army to dash across country, flanks exposed and a general attitude of "hell for leather" enveloping the command.

Now this was all very well under General George Patton. The Patton flanks were sealed very effectively by unlimited air power. In the opening phases of the war the United States will have to fight if the Russians attack, the conditions will be exactly reversed. It will be the enemy who has the superiority in planes, tanks, guns and men.

THE Seventh Army has one problem which does not affect the other Allied forces in Germany: the care of dependents in the event of attack. The importance of this problem has been exaggerated but it still is great.

In the event of Soviet attack, Seventh Army and European Command together will have to care for well over 100,000 dependents and civilian employees of the United States government in Germany.

In addition, the moment the blow falls, hundreds of thousands of Germans, deeply aware from their own experience of Russian savagery in war, will take to the roads and move westward. Anyone who experienced the campaigns in Belgium and France in 1940, as I did, realizes the tremendous burden which refugees of any kind impose upon an army fighting in the field. Roads are clogged and efforts to keep refugee traffic on certain ones are frustrated by enemy machine gunning of those roads, which forces the refugees onto the highways being used by the army. Transport, medical facilities and food have to be assigned to refugees. In addition, the refugees are not all what they seem. Thousands of those who poured westward from eastern France and eastern Belgium in 1940 were German agents and saboteurs. The Russians are not novices at war and presumably they will play the same trick.

The evacuation of dependents—wives, children and other relatives of fighting men—and civilian employees and their families from the United States zone will be a tremendous job, involving at least 20,000 soldiers who could be put to better use. Early in 1951, it was estimated that it would take twenty-one hours to evacuate American dependents and civilian employees from one city, Munich. The time has been lowered progressively as better arrangements have been completed.

ONE factor which must be accepted is that in the event of a Soviet invasion, the enemy will have copious information about the location of various Allied units, depots and airfields. No one can screen 50,000,000 Germans

and, as a result of the undoubted presence in West Germany of thousands of spies for the Soviet Union, the first day of attack would see enemy bomb strikes on the major installations and troop concentration areas in the United States zone. The counterespionage agencies of the American authorities in Germany have done their best, but we have been employing Germans in our zone almost since the start of the occupation and it would be a bold CIC agent who would say that the German employees of the United States Army in Germany are "clean."

Of course, this cuts the other way, too. From the outset, the Soviet armies of occupation have been more dependent on German help than have the allied armies. Although these Germans, too, have been screened by Russian counterespionage agencies, there is a good deal of reason to doubt the efficiency of this screening. Moreover, the Russian military establishment in Germany has been larger than those of the Allies and has needed the help of indigenous industry a great deal more. Soviet tanks and guns are repaired and Soviet trucks rebuilt in German factories.

Finally, although the Western powers are not loved in western Germany, they are not hated the way the Russians are in the east. Such hatred inspires many to espionage. A lot of the information they send through is of doubtful authenticity, but some is very valuable indeed. Much of what we know about the Soviet Army as a whole is based on German reports about the Russian forces in East Germany.

OBVIOUSLY, the United States Seventh Army faces many problems and has many weaknesses to overcome. But there are two salient points in its favor: already it is a greatly improved army in numbers, training, some equipment and morale over that which guarded the front line of the Western world in early 1951; and a rigorous training program and steady reinforcement provide the basis for optimism for the future. The enlisted men are of very high caliber, physically and mentally. I doubt if any army in history has ever had so many men in its ranks with high-school and college degrees. The officers are improving on the lower echelons and are very good at the top.

What the Seventh Army needs is within the power of the people of the United States to give. It is shocking to realize that soldiers representing the foremost industrial power of all time would have to go to battle tomorrow less well armed than their enemies. Think that one over the next time you worry whether there will be enough television sets next year. The Seventh Army needs modern arms and equipment now. The Russians are not going to be frightened by tall stories in the headlines about wonder-working, new equipment. Certainly, they are not going to be deterred. The only time such weapons will cause them to blink an eye will be when the weapons are here in Germany, ready to be used against them.

The Seventh Army has been fortunate in its commander. Matt Eddy is the kind of soldier and general evidently missed by Messrs. Mailer and Jones.

He is a wise, cool tactician who commanded the 9th Infantry Division and the XII Corps during World War II. In a command which contained a high percentage of glory hunters, he was economical and wary until he saw the moment for attack. Then he hit very hard.

Eddy is a big, bulky man of sixty, still agile enough to go through a night infiltration course incognito. Eddy is a disciplinarian but without bite. Eddy has an almost instinctive success with soldiers. A lot of generals try to be fatherly and talk about "my boys." I never heard the phrase pass Eddy's lips, but he talks to soldiers in a direct, homespun manner that achieves its purpose of putting the words across. And he is no different when he talks to other generals or to anyone else.

One day not long ago, he was wandering around the maneuver area at Grafenwoehr.

"Sergeant, you think a recoilless rifle that size is going to do you any good?" he asked.

The sergeant, warmed by such informality, said that he thought it would do him as much good as a peashooter in battle.

"That's about it," said Eddy. "Thanks, sergeant." And he wandered off.

ONE day this winter I climbed a hill and stood on the top facing the east. It was clear and the thin sun touched the chocolate fields and the deep green woods. To the right an American tank waddled through a farm village and a company of infantry stumbled through the fields around the village. There was a rattle of rifle fire from some of the defenders on the hill. The wind brought us the labored breathing of the tank in the village.

"Lie down, you guys," said the sergeant commanding the platoon holding the crest of the hill. "Don't let them see you."

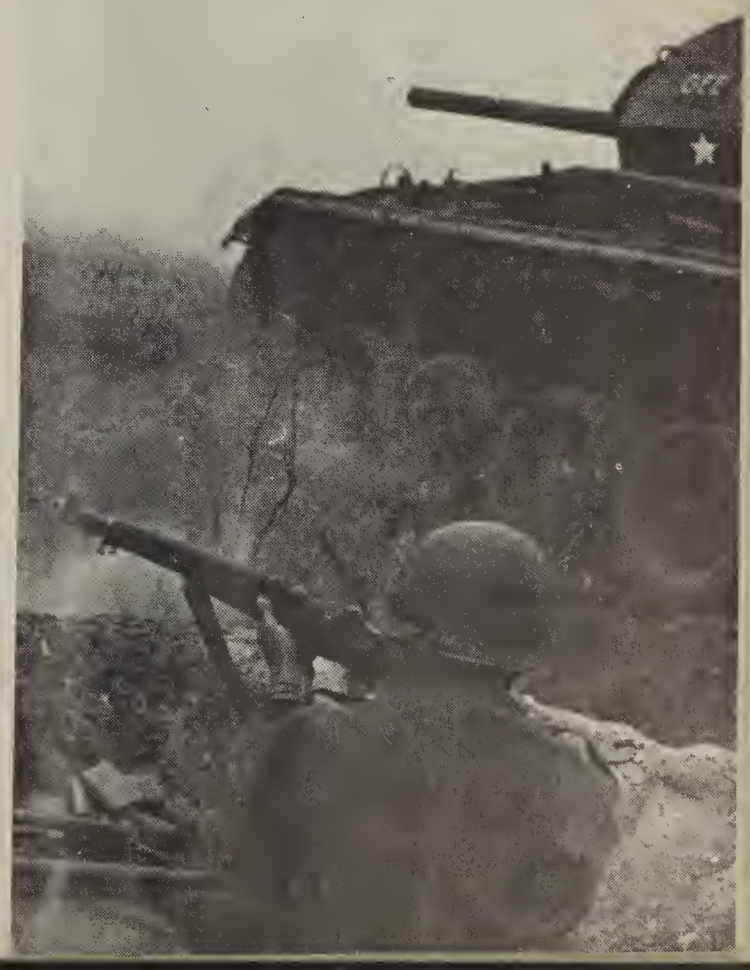
He was about twenty-four, very serious.

"You see," he explained, "these guys are supposed to be Russians coming from down that road; that's where they'll probably come anyhow, so it's good practice, see? So we let them come, the first bunch, and then blow that bridge and then hit them when we catch them around that draw."

This is where it all ends. This is the ultimate expression of what the West is doing. The long deliberations in quiet offices in Washington, London and Paris. The statesmen solemnly scratching signatures to pacts and treaties. The generals planning on the big maps and noting production figures and tables of organization. The man at the machine in Detroit or Pittsburgh. The awkward squads marching and countermarching in some dusty prairie camp. It all comes down to this: a line of men on the crest of a hill, waiting to fight as men have waited on hilltops since first they went to war; a line of hills with a gap through which the enemy may come; quiet farming villages, as were Gettysburg and La Haye Sainte.

If we are strong enough these Americans in the cold on the hilltop may not have to fight. If we are strong enough. In the Seventh Army, the United States has made a good beginning toward strength in Europe. Its men and its officers can do a great deal. But the balance of the job is up to the people of the United States. And to our allies.

Tank-infantry teams work constantly together on field training problems.



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Battalion Commander in Europe

Lt. Col. Eben F. Swift

COMMANDING a battalion in peacetime is a lot different from commanding one in war, my new regimental commander said significantly, "and in some ways it's harder," he added. These were about the first words I heard when I took over an infantry battalion of the European Command one rainy fall day in Germany a couple of years ago. After a few weeks I found out exactly what the regimental commander meant. I had commanded a battalion during the war for over a year, including four months of combat. But in taking over this new assignment I soon ran into problems I had never met before. Not serious problems, but problems that could wear you down if you let them. Problems you could not shrug off as unimportant compared with those of wartime. Some of them were peculiar to the European Theater; most of them confront a battalion commander anywhere in these times.

A veteran battalion commander from Korea would consider the task here in Europe easy compared to his own, and he would be right. Without meaning to minimize the importance or difficulty of commanding a battalion in Korea, I will state that commanding a battalion in Europe is not a soft job.

I first became aware of a big difference in my command problems when my battalion adjutant, an extremely bright young man, briefed me on what I later called "the battle

LIEUTENANT COLONEL EBEN F. SWIFT, Infantry, now on the staff of the Seventh Army, is a 1940 graduate of the Military Academy. During the Second World War he served in the Pacific with the 25th Infantry Division and on Admiral Halsey's staff.

Training in the field is continuous, rugged and exacting. The battalion commander performs under the watchful eye of higher commanders, newspapermen and visiting VIPs.





Inspections determine the state of equipment and also give the commander an opportunity to talk to men individually.

of statistics." Statistics are kept in the European Theater on everything: AWOLs, delinquency reports, serious incidents, VD cases, general, special, and summary courts-martial, soldiers' deposits, percentage of insurance (now discontinued), and motor traffic violations, to mention a few. The surprising thing to me was not that such statistics were kept, but that such importance was placed upon them. Reports on all of them were turned in and consolidated at every level of command every month. Then the statistics on each unit of the European Command were filed, charted, and published. Comparison of the units' statistics were then made, and woe unto the battalion or company commander who was caught with his statistics down—or up, if they were supposed to be down. If the statistics were consistently below average the battalion or company commander might find himself out of his job.

THE BATTALION COMMANDER FIGHTS A NEVER-ENDING BATTLE WITH STATISTICS, DISCIPLINE, ADMINISTRATION AND TRAINING. BUT THE REWARDS ARE GREAT AND TRULY BEYOND PRICE.



I soon learned not to take the statistics lightly. In fact, I spent a great deal of time poring over them with a view to taking the necessary corrective action before someone from above ordered me to do so. These statistics actually are important. They show higher commanders the state of morale and discipline of their units, and, incidentally, the effectiveness of their subordinate commanders. In combat your unit was judged by the way you performed your mission. During the war, combat efficiency was generally the determining factor in the morale and discipline of your unit; if you took your objectives with a minimum of casualties you generally did not have to worry about morale or discipline. As one outstanding commander put it: "Nobody questioned the commander who had the objective in his pocket." But combat efficiency is difficult to determine in peacetime, and is even more difficult to reduce to facts and figures on paper. Statistics, however, are very definitely cold, hard facts and figures.

Senior commanders like to have such facts to deal with instead of vague generalities. It is something they can get their teeth into, and while I am using that image, they can get their teeth into their subordinate commanders, too. I do not mean to imply that the senior commanders in the European Command were unduly severe or that their relations with their subordinates consisted of reprimanding or relieving them merely on the basis of poor statistical reports. In fact, higher commanders in this theater were fair, considerate, and helpful to their subordinates. They

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realized the problems of command over here and made every effort to help their juniors to solve their problems. Certain trends in the statistical records pointed up certain command weaknesses. The wise battalion commander used them to guide his action, and didn't fight or ignore them.

I HAVE said that the statistics indicated the state of discipline and morale in the units. I would like to emphasize that a high standard of discipline was particularly important in Europe at that time for obvious reasons. Every soldier's conduct was under the critical scrutiny of the Germans and other Western Europeans. Our soldiers represented the United States to these people. As a battalion commander I tried to impress them with this fact. In combat, I was mainly concerned with battlefield discipline. Here in Europe I did not worry about it; I don't mean that I was so shortsighted as to neglect battlefield discipline just because there was no battle. Nor do I mean that I failed to realize that battlefield discipline is *the* type of discipline that is essential above all other types, and it was my responsibility to see that my unit had it. What I do mean is that I was convinced from my experience of commanding troops in combat that when American troops are properly led, trained, and equipped, one of their strongest characteristics is their high standard of battlefield discipline. I was similarly convinced from my peacetime experience that their discipline off duty away from barracks was one of their weakest characteristics.

I would have much preferred to concentrate on battlefield discipline and leave them alone during their off-duty time. Nothing would have pleased me more than to relinquish my command responsibilities during off-duty hours. Actually, insofar as the discipline problem was concerned, my command responsibilities seemed most burdensome off duty. It is hard to get the idea over to the American soldier without moralizing, preaching or mouthing sanctimonious platitudes that it is his duty as a soldier to behave properly when he is in public. As a general rule our soldiers were young; they had all the vigor, enthusiasm, and energy of youth. Their money went a lot farther than it did in the States, and American soldiers have never been noted for stinginess. By far the great majority of our soldiers were the fine, clean-cut American young men you read about in the magazines, but not all of them were. And even fine, clean-cut American boys can pick up some pretty vicious habits, whether they are in the Army or not—as juvenile delinquency files in U. S. courtrooms show. Also, some of our soldiers were, to put it mildly, not paragons of virtue. And such men could exert a great deal of influence on the young soldier, a lot of it bad. Liquor was plentiful and cheap. There were several million more women than men in Germany; they had a lower standard of living than our own women, and were not accustomed to opposing the will of men. Although there was a great deal of tension in Germany the troops worked hard. But there was no war to absorb all their time and energy, so there *was* time to get into trouble. These things made the disciplinary problem in Europe tougher than in most places. But every commander has had to face it, and not one that I know of, has attempted to shirk his responsibility of attempting to solve it.

I DON'T know whether my approach to this problem was typical or not. From a statistical point of view, the hard, cold figures again showed that my system of discipline, if it could be called that, was successful, in that there was a general improvement in all the items I have mentioned from the time I took over the battalion until I left it twenty months later. However, I did run into many stone walls and made mistakes. And I had periods of deep discouragement in those twenty months. I well know that in handling men, in dealing with human relations, you cannot devise a formula, pour in the figures, come out with a solution and say, *this is it;* do it this way every time and you can't go wrong. The fact that the results shown on paper were, in general, pretty good doesn't convince me that I think I have found the key to successful leadership. Nor does it mean that I can offer my experience as an example of how the successful battalion commander should operate. My officers and men were a constant source of amazement to me. I could never quite figure out how some of my so called "eight balls" could, at times, do so many things right, and how, on other occasions, my supposedly fine, upstanding men could do so many things wrong. Maybe that was what made a battalion commander's life interesting. It also made him somewhat distrustful of arbitrary statements and figures stated as unalterable facts on paper. Human nature just refuses to be catalogued. Therefore, I don't believe you can catalogue your methods of handling any one type of disciplinary problem.

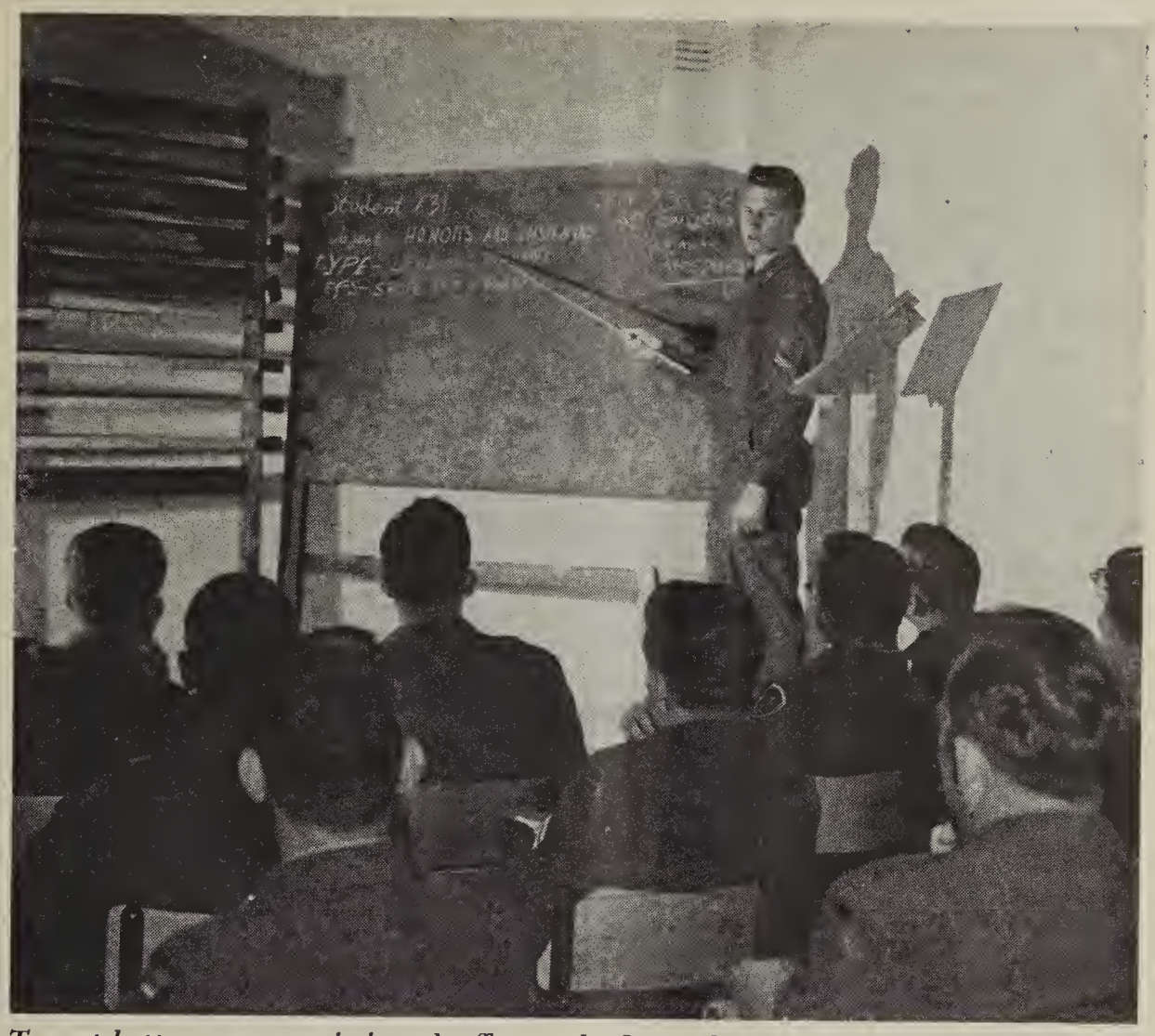
On the other hand, a commander cannot just throw up his hands and say, human nature being what it is, nothing can be done about it. Over here, he damned well *had* to do something about discipline, human nature or no human nature.

In order to get down to the fundamentals of the discipline problem a commander must consider the character of the men in his unit. I have always thought that the American people have expected a little too much of the Army in the matter of disciplining its youth. Frequently the Army is expected to accomplish more in the way of education and character development in two or three years than has been accomplished at home in eighteen or twenty. One of the principal objections of American mothers to having their sons in the Army is that they believe their boys will be subject to temptations and evil influences that will lead to their moral disintegration. Yet in many instances there has been little or no parental guidance before the boy came into the Army to help him fortify himself against these temptations and evil influences. The Army is supposed to do that, too. If the lad has not been able to complete his education the Army sees that he has the opportunity to do it.

IN addition, incidentally, the Army must teach him to operate all the complicated weapons and machinery of modern war, show him enough tactics to operate as a member of a large complex team, and instill in him the will and capability to fight for his country. Taking everything into consideration I think the Army does pretty well. But in some individual cases it does fail, and when those failures occur it is discouraging to the commander. In my experience there was no more tragic time than when I had to sit on a general court-martial and watch a bewildered eighteen-year-old boy, guilty beyond a shadow of a doubt, literally convict himself of rape. The story was nearly always the same. He was drunk; the girl resisted, but he thought she was just kidding. All the rest of them had submitted after he offered them chocolate or cigarettes; he socked her a few times to keep her quiet (that's the way a he-man operates, you've got to dominate those Kraut girls) it all happened before he knew what he was doing. He thought all along that the girl would give up. He didn't think she would dare say anything about it afterward, anyway, and so on and on.

If you investigated further to try to

get at the bottom of the thing you would probably find that, yes, he had heard the character guidance lectures, but hadn't paid much attention. Been out the night before and was awful sleepy. Had the officers been to blame? What kind of an example had they set for him? Well, on the surface they seemed like any other family people at home, but he knew better. All the officers and their wives slept with each other, the fellows said. They all drank like fishes, too. Did he know this to be true? Had he seen his officers drunk? Well, no, he hadn't ever seen any officer drunk, but he hadn't been around the officers' club. All the officers and their wives get drunk every night up there, according to a friend of his who knew a girl who worked there. Did he know of any specific cases of immorality among the officers' families? Well, no, but the old timers did. They would tell him about it sometimes over a few beers. Besides, he had read *From Here To Eternity*. How about his noncoms? Had they told him how to stay out of trouble? Well, the older ones are just like the officers. Family men, mostly. The younger ones raise just as much hell as he did, but they don't get caught. Did the noncoms ever tell him to stop when he got too much to drink? Once in a while they did, but the noncoms don't like to get mixed up with the guys in a *gasthaus* . . . afraid they might get in a fight and lose their stripes. So, the boy, much to his surprise, is convicted, gets a dishonorable discharge and a prison term and the Army has lost another soldier. In a way, this was worse to me than losing a man in combat. At least, in combat, they were lost honorably. This way it seemed as if a man's life were wasted away needlessly. It was worth a lot of thought and action to prevent cases of this kind.



To get better noncommissioned officers, the Seventh Army NCO Academy teaches noncoms how to teach others and also emphasizes a leader's responsibilities.

I GAVE frequent talks to the men under the character guidance program. I was not convinced that my talking or anyone else's did too much good, but I did not intend to leave any stone unturned which might help solve the disciplinary problem. I tried to avoid preaching. I knew it was useless to tell them not to drink and to stay away from women. I tried to persuade them to drink moderately, and to have normal companionship with the right kind of women. I tried to point out that a man who gets sloppy drunk, makes an ass of himself, and doesn't know what he is doing is not only asking for trouble —he isn't even having a good time. Furthermore, he is doing himself and his unit a lot of harm in the eyes of everyone, particularly the Germans. I attempted to get them to take care of one another. If a man got a little too much and was on the verge of getting into a fight, or running afoul of the MP's, his buddy or buddies should get him out of there or get him back to barracks.

I think the most effective approach was appealing to the soldier's pride in his unit. I made every effort to convince him that if he behaved himself he was a credit to his outfit, and that if he didn't behave himself his whole outfit suffered for it. To most of the men this was a potent argument for good discipline. The chaplain was also a great help in the matter of character guidance, though anyone has a lot of resistance to overcome when he talks to some soldiers about their individual conduct. Fortunately, our chaplain was a good one. He realized this and did not give the men the impression he was trying to interfere with their private lives.

One mistake I avoided was to write additional restrictions, rules, regulations, and orders for command disciplinary purposes. I also discouraged my subordinate commanders from doing so. It has appeared to me that one of the occupational diseases of the Army is the tendency, when orders and regulations are violated or ignored, to write some more orders and regulations. I attempted to enforce the orders and regulations in existence. I found there were plenty of them to enforce.

IN order to aid me in enforcing them I needed the help not only of my officers, but especially of my noncommissioned officers. I found my noncoms strangely hesitant to exercise any authority whatsoever, and particularly after duty hours. I discovered the reason for this was that they were afraid of becoming involved in a fight. They were not afraid of fighting. They were under the impression under the new code of Military Justice that they could not lay a hand on another soldier *under any circumstances*. I told my noncoms that if they gave a man a lawful order, they could use whatever force they needed to enforce that order, and if they used such force, *they would be backed up*. I emphasized this fact that they would be backed up. I told them I didn't want them to run their outfits by bullying or unnecessary harsh treatment, but that I wanted noncoms who could control their men on or off duty. I don't know yet whether those statements were contrary to the Code of Military Justice,* but I do know that my noncoms became more effective and that fewer delinquencies were reported afterward.

*They are not.—THE EDITORS.

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It was obvious to me that discipline of a peacetime unit must be decentralized. When your soldiers are on duty, you can control them; you can direct their efforts, but unless you try to run your organization like a penitentiary you cannot direct your men's activities off duty. The men must be indoctrinated with the idea that they are responsible for their own actions, that the Army cannot wet-nurse them, cannot steer them away from all evil, cannot entertain them every hour of the day during their off-duty time, and will not wink at their indiscretions with a pat on the wrist and say boys will be boys. Self discipline is something that is developed within the man himself by himself. Writing more rules and regulations, revising the court-martial manuals, and hiring civilian psychologists will not solve the problem. Commanders are responsible for discipline, and must enforce it. They can develop and guide character, but they cannot make it. I tried to make those principles clear to all when I commanded my battalion.

A PROBLEM I had been led to believe would be a tough one in a peacetime battalion was administration. Having had little experience in the administrative duties of a commander of any peacetime unit I was somewhat apprehensive about it. Actually, I found that it wasn't as big a problem as I thought it would be. One reason, of course, was that battalion is not officially an administrative headquarters. Actually, although battalion was not charged with administration, plenty of it was done at battalion headquarters, if for no other reason than to relieve the company commanders of some of their administrative burdens. Also, battalion supervised company administration. Generally, my executive officer was charged with the supervision of company administration, and fortunately he was a good one. He was ably assisted by S1 and S4, who also knew their business. Consequently, my worries were comparatively few.

However, I viewed the administration problem from the standpoint of a battalion commander. The greatest administrative burden was carried by the company commanders. Various attempts at all levels were made to relieve the company commanders of their burden but none was very effective. The number of reports required, the personnel, the food service, and company fund records all required a great deal of the company commander's time. But the most complicated of all administration was the supply system, which, it seemed to me, required a certified public accountant. Here, too, efforts were made to simplify the system, but usually made it even more complicated. Company commanders were the most harassed men in the chain of command during my tour of duty as battalion commander.

Closely connected with the supply system were inspections. Upon sober reflection, I do not believe the battalion was harassed unnecessarily by an excessive number of inspections, although there were times when I did think so during the period of my command. Senior commanders must know the state of maintenance of equipment of their units, and I know of no better way of ascertaining it than by inspecting the units. When viewed from that perspective rather than from that of an unfortunate victim of the inquisition, inspections were not too hard to take. Generally speaking, inspections in the European Command were for the purpose of correcting deficiencies in the supply system rather than for crucifying the unit commanders. As such, they were valuable.

In my own inspections I tried to concentrate on, and emphasize maintenance of, equipment used to march, shoot, and communicate. More specifically, I inspected vehicles, shoes, weapons of all types, and radios intensively, especially weapons. I deemphasized "eyewash" as much as I could in my inspections, and I believe that most of the inspectors we had from higher headquarters did the same. As I saw it, the object of an inspection of an article of equipment was to determine whether that article was serviceable, or if it was a weapon or a radio, whether it would operate. Although I did not always conduct official inspections, my unit commanders and I watched weapons firing on the range, and if a man had a defective weapon he could get it repaired immediately at an ordnance truck manned by small-arms technicians. In my inspection of radios, I frequently had my communications people set up a radio net and test their sets while I moved from unit to unit. I believe this was a more effective and practical method of inspection than the conventional one.

When I inspected the men in ranks, I talked to as many of them as possible about their duties, their previous service, their homes, or any other subject upon which I could get their opinions or ideas. A battalion commander has surprisingly few opportunities to talk to his men individually. I thought inspections were a good time to do this. Of course, the men were not usually in a talkative mood when they were being inspected, but it seemed to make them feel less like numbers and more like human individuals at that time. And after bucking for an inspection for several hours, they were probably receptive to a few kind words.

IN discussing the problems of a battalion commander, I have left until last the most important of all—training. In Europe today the one essential point that no battalion commander, no commander at any level, can afford to forget or neglect, is that his unit must be ready to fight at all times, at a moment's notice. I have purposely pointed up the other problems first to emphasize the fact that this primary mission of training his outfit to fight is not a simple one, uninhibited or unrestricted by other considerations. During wartime the purpose of training is clear. Impending combat is an incentive to every man to expend the maximum effort on learning the all-important business of defeating the enemy in battle. In peacetime, when the showdown may come tomorrow, or next week, or next month, or next year, or maybe not at all, the incentive is not so sharply self-evident. Distractions from training occur more frequently in peacetime, and enthusiasm for the rugged life involved in a tough infantry field training program may diminish considerably, especially in the climate of Germany, which is far from ideal.

The battalion commander has this to contend with constantly. I fought incessantly to get men out for training. My first question to my company commanders on my trips to the training area was invariably, "How many men do you have out for training today?" The company commander could account for every man in the company, but it was still amazing how many men would be absent for various reasons. Guard, kitchen police, temporary duty, hospital, armorer-artificers, supply-room clerks, company clerks, dayroom orderlies, the list went on and on. We cut our overhead personnel to the bone, but still we lost a large percentage from training. I never found a completely adequate solution to the problem but I did notice, after my persistent investigation of the matter, that more and more people did appear for training. The company commanders soon learn that I wanted the largest possible number of men out for training, and they got them out.

The training program for troops in Europe was the best I have ever seen.

It was well planned, in that it was progressive, practical, and realistic. It was executed vigorously and, I believe, intelligently by combat unit commanders at all levels. I have read a great deal about the difficulties our troops would have in a transition from "soft" occupation duties to combat. Naturally, the transition from any kind of peacetime duty to combat is going to be difficult. But anyone who believes that the combat troops in our occupation army of Germany were soft simply does not know the facts. I kept a calendar in my headquarters marking all dates in red that my battalion spent in the field, that is, in field bivouac. At the end of the year over half the calendar was covered with red. In other words, the battalion was on maneuvers, CPXs, or field training for a period of over six months out of the year.

Most of this time was spent at Grafenwohr, a former training area of the Wehrmacht in the eastern part of the U.S. Zone. Any professional infantryman could hardly help getting lyrical in praise of Grafenwohr as a training area. Of course, in some other respects the troops often described Grafenwohr in terms of lyrical profanity. It is not the loveliest place to live in in the world, but as a training area it is unexcelled. Field firing ranges are available for firing every type of infantry weapon except the 90mm tank gun. The terrain is variable, offering facilities for almost any kind of tactical problem, including fighting in towns evacuated by the people when Hitler decided to make the area a Wehrmacht training center. Field exercises could be conducted from squad to division size. The schedule was so arranged that every squad, every platoon, every company, and the battalion ran through three or four different problems, in each unit.

The most important training event of the year for the battalion was the annual battalion AFF test which involved the battalion both in the attack and in the defense. In the attack phase all battalion weapons were employed with supporting tanks, artillery, and heavy mortars all firing live ammunition.

This test was a true and practical trial of the battalion commander's ability to employ combined arms. And observing every move he made were umpires, high-ranking officers from both US and NATO forces, possibly a Congressman or two, newspaper correspondents, and other assorted VIPs. As a result, he worked under considerable pressure approximating to some extent the pressure he would be forced to work under during combat. I was extremely proud of the fact that, taking the average rating of both the attack and defensive phases of the problem my battalion had the highest rating in the division on this test. I attributed this to the fact that we started early to prepare for this test by holding practice problems when ranges were available, by having classes for officers and NCOs on troop leadership procedures and coordination of weapons, and also to the fact that every member of the battalion had the desire to do his job well. I believe my battalion was a well trained unit, and I believe it was representative of the other infantry battalions of the European Theater, which were—and still are—part of a thoroughly professional, integrated combat team ready and willing to fight if and when the bell rings.



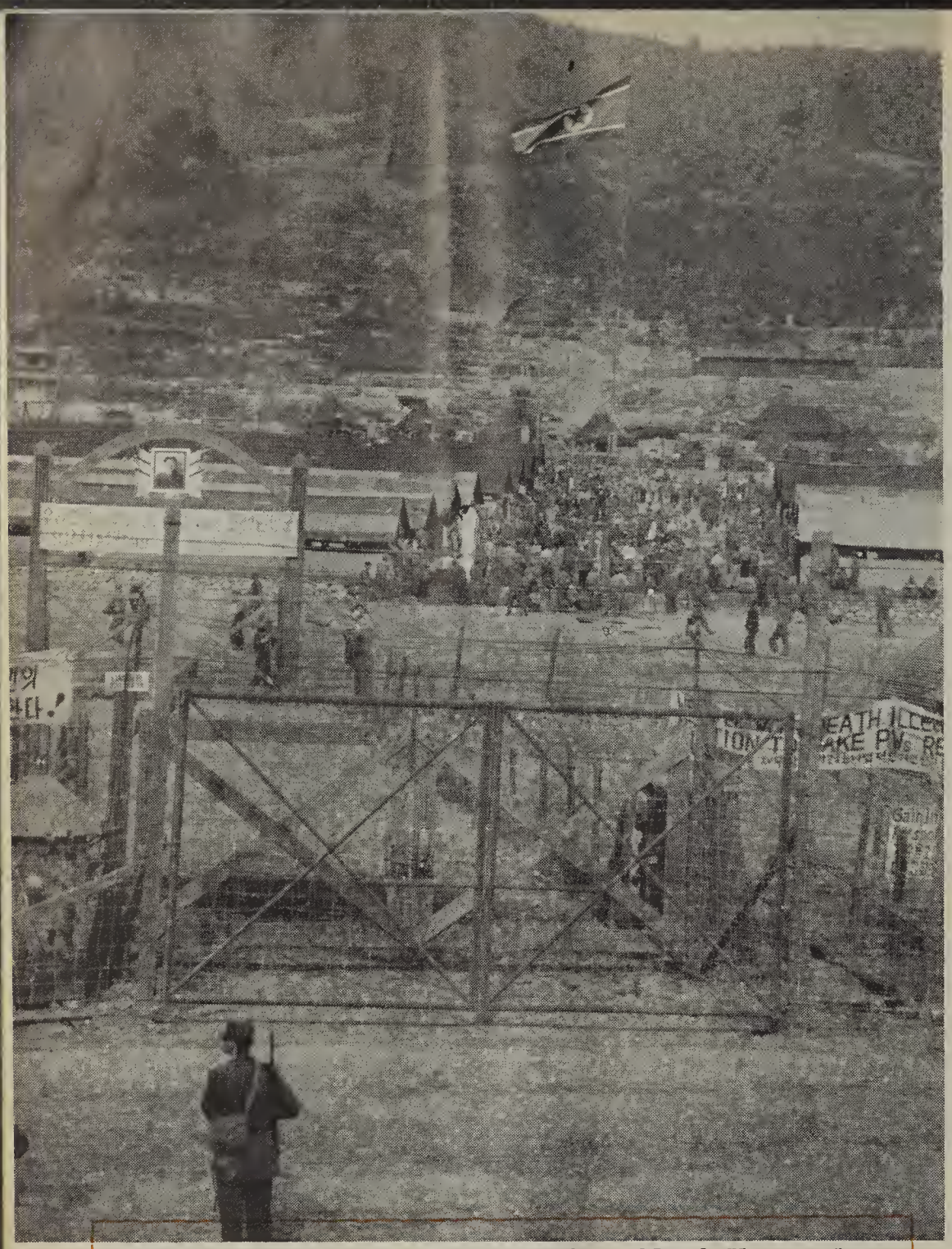
Field training of Seventh Army combat units is continuous and thorough. Here Battery B, 206th Field Artillery Battalion, is preparing to fire.

WHEN I left the outfit to go to a staff job in Seventh Army headquarters the battalion gave me a farewell review. As the troops passed the reviewing stand, I was impressed by the rhythmic, free-swinging stride of the American soldier and by the relaxed power and precision of a well trained unit on the march. I reflected upon the contrast of this picture and the one I remembered of my battalion during the war on another kind of march. That march was on a jungle-covered hill on the other side of the world in 1945—without field music. The men were marching single file in the same way Ernie Pyle so accurately and feelingly described the men of the North African campaign in 1942 in his book, *Brave Men.* This was the way these men and men like them marched over all kinds of hills from those of Guadalcanal to the Harz mountains of Germany from 1942 to 1945. Tired, dirty, sweaty men, carrying grenades, machine gun tripods, cloverleafs of ammunition, mortar base plates—men with the grim, patient, sardonic, resigned, incredibly fatigued, stubble-faced expression of the combat infantryman.

How much older and more battle-wise were those men of 1945 than these youngsters, resplendent in blue scarves and shining helmet liners, marching so confidently past the reviewing stand! Suddenly it came to me that our wartime combat soldiers were not older. They just looked older. And many of the men marching in my very battalion here in Germany had climbed many a hill when the war was on. I was the one who was older—and not so much older at that. The differences in the men were superficial; only the time and circumstances were so tremendously different.

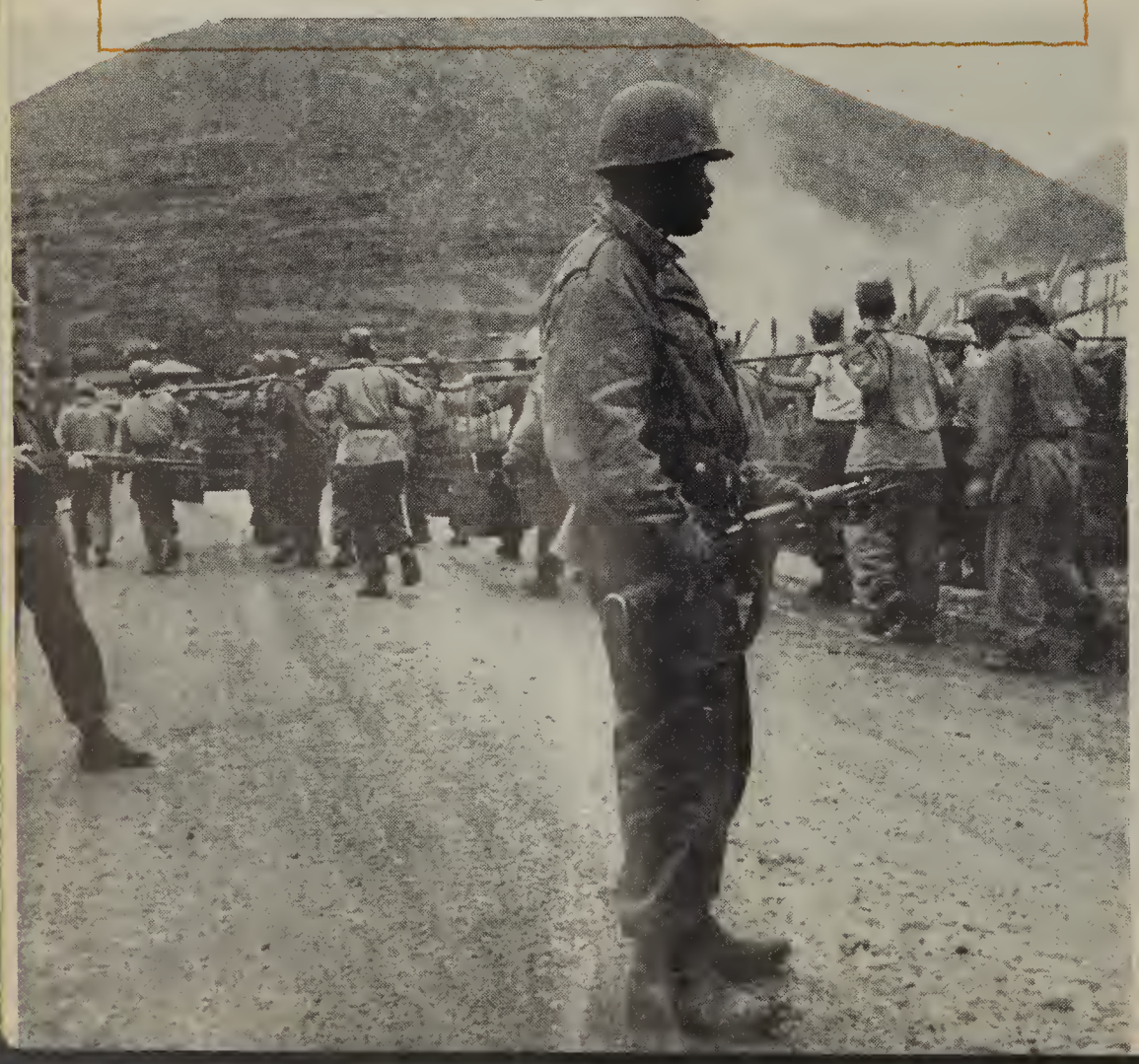
These men and those of the wartime battalions were of the same breed, of the same heritage, and could do the same job—if, God forbid, they had to. As the last company marched off the parade ground and I turned to shake the hands of members of my staff and my unit commanders, my heartfelt feeling and conviction was the very same. It is an honor and a privilege to command a battalion of the U. S. Army anywhere at any time.

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Communist prisoners mill about under a North Korean flag. The posters flaunt Communist propaganda at U. S. guards.

Riotous work details became orderly when the 187th Airborne RCT took over the guarding of the Communist PWs.





A tank's guns cover infantrymen of the 2d prisoner-of-war compound. The task of cleani

Koje Island in

IN its 177 years the U.S. Army has put down t quelled Indian uprisings, fought a fratricidal civ To these unpleasant duties has been added the c Island. When the record is complete and the fina temporary embarrassment, the Army has completec credit.

Rebellious prisoners who gave up march out of their compound. An injured man is carried piggyback by one of his PW comrades.





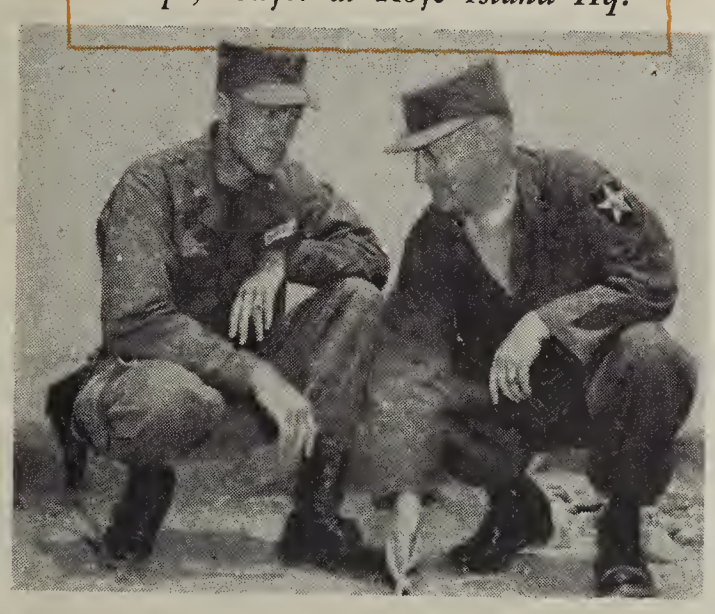
Division swarming through a cages was mean and irksome.

Brig. Gen. T. J. H. Trapnell, CG 187th RCT, and Brig. Gen. Haydon L. Boatner, CG of the prison camps, confer at Koje Island Hq.

A Koje Island trooper displays some of the crude gasoline-filled "Molotov cocktails" made by the unruly prisoners.

spective

disturbances by lawless citizens,
l subjugated the fanatical Moros.
d mortifying experience of Koje
vritten it will show that, despite
antastically difficult mission with





Barbed-wire entanglements surround a guard tower overlooking a PW compound.



Prisoners practiced bayonet drill with wooden "rifles." Sharp spears, knives and other weapons were found in the compounds after they were emptied.



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How Efficient Is Our Efficiency Report?

OFFICER EFFICIENCY REPORT

SECTION I

1. LAST NAME – FIRST NAME – INITIAL	2. SERVICE NUMBER	3. GRADE	4. CONTROL BRANCH	5. COMPONENT
6. [illegible]	7. [illegible]			

9. NAME, GRADE, SERVICE NUMBER AND ORGANIZATION OR UNIT OF RATING OFFICER

10. NAME, GRADE, SERVICE NUMBER AND ORGANIZATION OR UNIT OF INDORSING OFFICER

Lieutenant Colonel Walter J. Fellenz

11. REASON FOR REPORT — PCS RATED OFFICER ☐ — CHANGE DUTY RATED OFFICER ☐ — OTHER *(Specify)*
(SEMI) ANNUAL ☐ — PCS RATING OFFICER ☐ — CHANGE DUTY RATING OFFICER ☐

12.

(Do not write in this space)

13. DUTIES ACTUALLY PERFORMED ON PRESENT JOB *(Give his duty MOS _____, assignment, and briefly describe major additional*

IS our present-day efficiency report really an efficiency report? Is it a true mirror of a man's efficiency? Does it reflect accurately what he has done in such terms that his over-all value to the service can be properly evaluated? The report we use now is several years old. Before that we had a long one, and before that still another type.

Is the one we use today efficient? Possibly. Enough time and effort have been given to it.

What did the old-time military leaders do? Caesar, Hannibal, Napoleon, Gustavus Adolphus, Genghis Khan, the others who have shaken the foundation of the world? They must have used some kind of report, for their lieutenants had the stuff to handle their men. How were the accomplishments of their lieutenants recorded?

Napoleon had twelve secretaries, but what kind or type of efficiency reports did he use? Wouldn't it be a good idea for us to search the archives and study them? We might find out how to exploit better all the qualities of *manliness* we find in our own officers and NCOs.

Let's look for a moment at our present Form 67-2, not with a critical attitude at all, but just a quick run over it. It has four sections and page 1 is section 1. On the back are sections 2, 3, and 4. Items 15A and B of section 1 deserve a little thought. According to Army Regulations 600-185, here is the place where the rating endorsing officers must make as many characteristic, descriptive remarks as possible about the rated officer, basing these of course, on what they have seen of him themselves and what has been reported to them about him.

From studying many efficiency reports, I've learned that a great number of people do not fully exploit paragraphs 15A and B. The descriptive terms found in AR 600-85, if used properly and judiciously, can give a very accurate

LIEUTENANT COLONEL WALTER J. FELLENZ, Infantry, is Deputy Chief of Staff at The Infantry School.

SECTION II

ESTIMATED DESIRABILITY IN VARIOUS CAPACITIES – INDICATE THE EXTENT TO WHICH YOU WOULD DESIRE THE RATED OFFICER TO SERVE UNDER YOU IN EACH TYPE OF DUTY DESCRIBED BELOW. PLACE AN X IN THE PROPER BOX. CONSIDER EACH ITEM IN TERMS APPROPRIATE TO RATED GRADE AND BRANCH. USE THE "UNKNOWN" COLUMN ONLY IF THE NATURE OF YOUR CONTACTS WITH THE RATED OFFICER MAKES IT IMPOSSIBLE FOR YOU TO MAKE AN ESTIMATE OF HIS PROBABLE USEFULNESS IN A PARTICULAR ASSIGNMENT.

	RATER						INDORSER					
	UNKNOWN	NOT WANT HIM	TAKE A CHANCE ON HIM	HAPPY TO HAVE HIM	PREFER HIM TO MOST	PARTICULARLY DESIRE TO HAVE HIM	UNKNOWN	NOT WANT HIM	TAKE A CHANCE ON HIM	HAPPY TO HAVE HIM	PREFER HIM TO MOST	PARTICULARLY DESIRE TO HAVE HIM
A. COMMAND A UNIT	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
B. SERVE AS A STAFF OFFICER SPECIFY:	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
C. WORK AS A SPECIALIST, PROFESSIONAL PERSON, OR TECHNICIAN SPECIFY:	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
D. TEACH IN A CLASSROOM SITUATION	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
E. SERVE IN A CAPACITY INVOLVING MANY CONTACTS WITH CIVILIANS e.g. CONTRACT NEGOTIATION, ROTC, NG, ORC, ETC.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
F. CARRY OUT AN ASSIGNMENT INVOLVING MOSTLY ADMINISTRATIVE DUTIES	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
G. REPRESENT YOUR VIEWPOINT IN LIAISON ACTIVITIES	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
H. MAKE DECISIONS AND TAKE ACTION IN YOUR NAME DURING YOUR ABSENCE	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
I. BE RESPONSIBLE IN AN EMERGENCY REQUIRING FORCEFUL LEADERSHIP	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
J. OTHER SPECIFY:	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

K. COMMENT, AND/OR CLARIFY ABOVE RATINGS AS DEEMED NECESSARY; INCLUDE ANY SPECIAL QUALIFICATIONS OF VALUE TO SERVICE

picture of the officer being rated. Let's take his manner of performing his duty, for example. There are some sixty terms to pick from, each an accurate description—such terms as commanding, amiable, diplomatic, frank, considerate, loquacious, deliberate, retiring, blunt, shy . . . Any one of these words by itself is inconclusive. But when you link a number of them together you can make a complete and accurate picture of any man. In Section 2 of the report we see the rater's column and the endorser's column, and twelve particular items from A to K. These seem to be self-explanatory, but there is actually much confusion about them.

The six columns run from lowest to highest: "unknown," "not want him," "take a chance on him," "happy to have him," "prefer him to most," and "particularly desire to have him." The most misinterpreted column is "happy to have him." Does "happy to have him" mean "happy to have him"? I wonder. One recent interpretation I received from an officer was, "Well, that means I'll take a chance on him." Aren't there some more descriptive, *positive* iron-clad terms that could be used for this column?

UNDER Section 2 is column K, referring "to comment and or clarify above rating as deemed necessary," which also says, "include those qualities of value to the service." A recent change in Army Regulations says this column should be used to express an opinion, where necessary, of whether the man being rated is economical in the use of supplies and equipment. In view of the cost-conscious policy now in effect, and which as far as the Government is concerned has been in effect all along, it is now necessary for the rater to put a comment in this column which is generally either *derogatory* or *complimentary*. This item is very important; but it has quite possibly been ignored by many rating officers. Also, many of the officers rated do not place much value on this particular column.

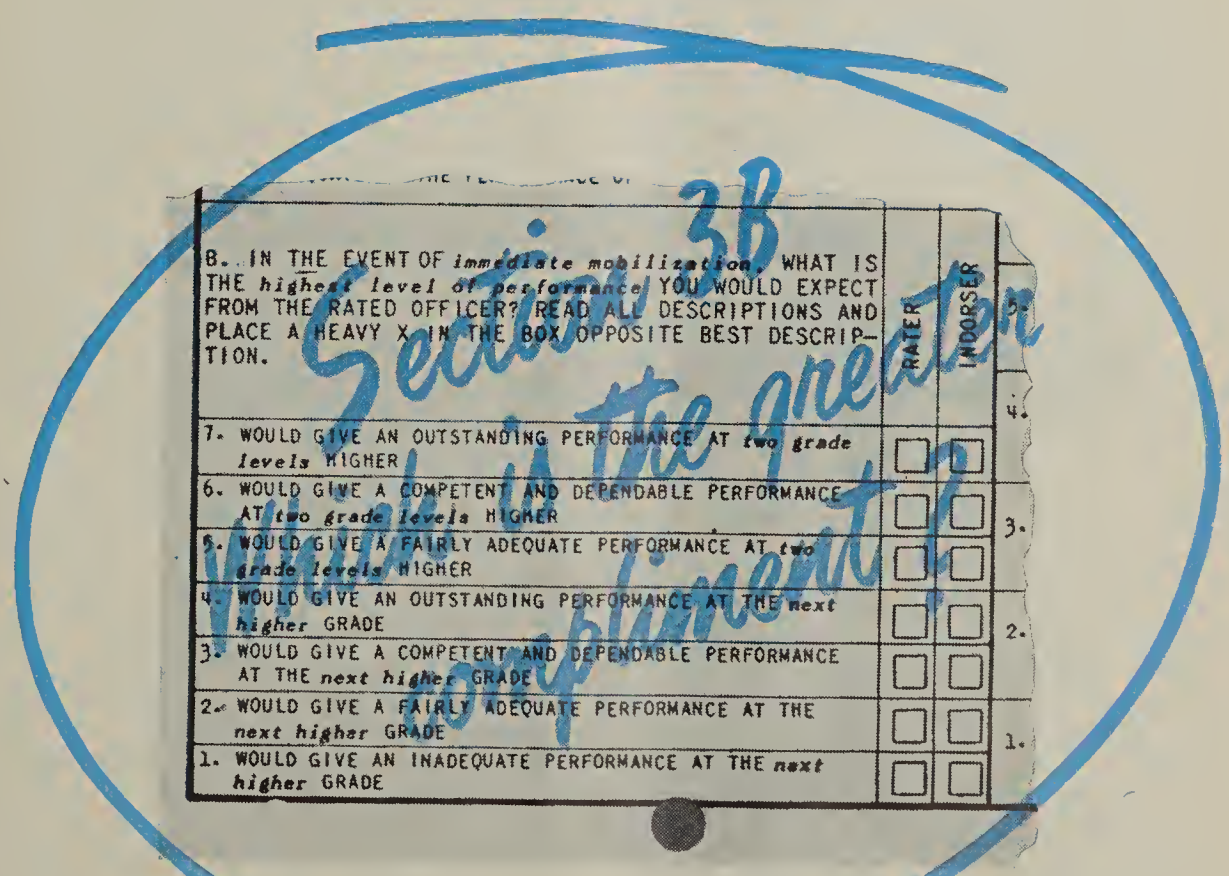
Section 3B is quite controversial. The instructions say: "In the event of immediate mobilization, what is the highest level of performance you could expect from the rated officer? Read all descriptions and place a heavy X in the box opposite the best description." The seven columns run as follows: (1) "would give an inadequate performance at the next higher level"; (2) "would give fairly adequate performance at the next higher level"; (3) "would give a competent and dependable performance at the next higher grade"; (4) "would give an outstanding performance at the next higher grade"; (5) "would give a fairly adequate performance at two grade levels higher"; (6) "would give a competent and dependable performance at two grade levels higher"; (7) "would give an outstanding performance at two grade levels higher." This section seems to be the one that gives rating and endorsing officers the most trouble. Which do you think is the greater compliment: "Officer X would give an outstanding performance at the next higher grade?" or, "Officer X would give a fairly adequate performance at *two* grade levels higher"? I don't know, and neither do a great many other officers. Many feel that the first description is the most complimentary. But as far as I know in whatever scoring efficiency reports are subject to, the last compliment is recorded as the higher.

SO much for the present efficiency report. But do raters and endorsers actually know *how* to use the efficiency report? Do they exploit it to its full advantage? Recently I discussed with one field-grade officer the report I planned to render upon him in the next two or three months. I talked to him from notes I had on a draft efficiency report and outlined exactly what I thought of him. When I got through he said, "Colonel, that's the first time in my career that anyone has sat down and talked to me about my efficiency report!" He had been in the Army eleven years and no one had troubled to point out either his good qualities—or his bad ones so that he might correct them. Within two weeks this man had taken action to correct the derogatory remarks I had made.

Do raters and endorsers customarily sit down this way with the people they are going to rate? And not just before the report goes in but several months beforehand, so that they can have a full and free opportunity to try to correct any bad traits of character or any lack of attention to duty? Believe me, from my own experience the rated officer will *welcome* any constructive criticism the rater and the endorsing officer may have.

Hesitancy over calling in the individual and laying it on the line undoubtedly springs from a very fine quality—that of not wanting to judge other people. However, it is our bounden duty to do so. Our oath of allegiance to our Constitution involves that we must, where necessary, judge for the purpose of bettering our subordinates!

Many apparently prefer to pass silent judgment. They write up the report and send it in without telling the rated officer anything about it. Then some years later if the rated officer happens to pass through Washington, he stops and takes a look at his reports. There is just one reaction you have when you read derogatory remarks made about you several years before—disdain or even anger and ill feeling. That should not be. It isn't the intention at all! Let us show our subordinates that we have confidence in them and help them whenever we possibly can.



	RATER	INDORSER	
8. IN THE EVENT OF *immediate mobilization*, WHAT IS THE *highest level of performance* YOU WOULD EXPECT FROM THE RATED OFFICER? READ ALL DESCRIPTIONS AND PLACE A HEAVY X IN THE BOX OPPOSITE BEST DESCRIPTION.			
7. WOULD GIVE AN OUTSTANDING PERFORMANCE AT *two grade levels* HIGHER	☐	☐	7.
6. WOULD GIVE A COMPETENT AND DEPENDABLE PERFORMANCE AT *two grade levels* HIGHER	☐	☐	6.
5. WOULD GIVE A FAIRLY ADEQUATE PERFORMANCE AT *two grade levels* HIGHER	☐	☐	5.
4. WOULD GIVE AN OUTSTANDING PERFORMANCE AT THE *next higher* GRADE	☐	☐	4.
3. WOULD GIVE A COMPETENT AND DEPENDABLE PERFORMANCE AT THE *next higher* GRADE	☐	☐	3.
2. WOULD GIVE A FAIRLY ADEQUATE PERFORMANCE AT THE *next higher* GRADE	☐	☐	2.
1. WOULD GIVE AN INADEQUATE PERFORMANCE AT THE *next higher* GRADE	☐	☐	1.

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Spit and Polish

Smart personal appearance is achieved by paying attention to a lot of little details. The best summing up of all these details we have ever seen appears in a chapter of *Handbook and Manual for the Noncommissioned Officer* (cloth $3.50, paper $2.50), recently published by the Combat Forces Press. Here we present an excerpt from that chapter. Other excerpts will appear in succeeding issues.

Fit of Shoes and Clothing

A man should learn what sizes he takes in clothing and in shoes. A few rules of thumb are these:

Sleeve length. Raise the arm to the horizontal and bend the elbow 45 degrees. The cuff should hit at the wrist bone.

Shirt sleeves should be tested in the same manner and be just a bit shorter than the coat sleeve so as not to show.

Trouser length should hit about two inches from the ground in the back when you're standing with your feet a few inches apart. New khaki trousers should just clear the ground when you walk; they will shrink and you're likely to wind up with "high water trousers" unless you allow for this. Khaki trousers frequently have to be let out after the first season. If you put on weight your trousers will ride higher—so it's better to make your mistakes on the long side, just so long as they don't scrape the ground when you walk.

Trouser seat should be roomy enough for you to bend over without bursting a seam and fit closely enough so that you don't look like a sack of flour tied in the middle.

Shoes must fit in such a way as to hold the foot securely but not too firmly and to allow sufficient room for each part of the foot to function normally without discomfort. We are quoting from TM 10-228. If the shoe fits properly there will be no slipping at the heel and no backward pressure to prevent the normal gripping of the toes or to cause weakening of the arch.



If it fits—wear it; otherwise don't

A soldier's shoe size is entered in his Form 189 (or in "her" Form 190). As an NCO you should be sure this information is recorded and that the supply sergeant doesn't feel so overworked he can't get the right size for your men. Every now and then you'll get a man with extra big, or little, or wide feet who wears a non-tariff size and you'll have to go to special pains to see that he is supplied.

The TM prescribes that four points be checked in the standard shoe-fitting test:

Snug fit under the arch is determined by grasping both shoes over the instep, with the thumbs on the outer side and the fingers pressing firmly against the arch close to the outer soles on the inner side of the shoes.

Proper position of the ball-joints. Locate the ball-joint with the thumb of each hand. It should lie on the area approximately opposite the widest portion of the shoe, just ahead of the curvature of the outer sole into the shank under the arch.

Enough width across the ball of the shoe is determined by pressing both thumbs against the lower, inner and outer portions of the vamp of the shoe, then working each thumb slowly toward the center until the thumbs nearly meet. The shoe should be filled by the foot without apparent tightness or excessive fullness. Each shoe must be checked separately for width.

Sufficient shoe length is determined by pressing down on each shoe with both thumbs at the extreme toe end. There should be a clearance or space of at least a half inch between the end of the big toe and the end of the shoe. Each shoe must be checked separately. If the shoes have a hard toe-box, the proper length is determined by the proper position of the ball-joint, the fit under the arch and the judgment of the shoe fitter.

Socks can give you as much trouble as shoes if they don't fit properly. A tight sock will bind the foot and tire it. It will cut down on blood circulation and help cause trench foot. A sock that is too large will wad up and cause blisters.

Clothing and equipment shops are supposed to make minor alterations on issued clothing to improve the fit. You should know what you and your men are entitled to in the way of free tailoring and insist on getting it. The following things are definitely prohibited: alterations that will change the approved fit of a garment, such as getting a too tight body-hugging fit on jackets and shirts; alterations that are uneconomical as compared with the cost of the garment; alterations that would bring a garment down in size and fit to approximately the same size as a smaller standard tariff-size garment.

Care of Clothing and Equipment

Don't get the idea that there's anything sissy about knowing how to use an iron or a needle and thread. Under normal living conditions it is a woman's job to sew on shoulder patches, darn socks, mend tears and handle the laundering and ironing. Some armies take their women into the field with them for these purposes, and other purposes which we won't go into here—as interesting as that might be.



Nice to have women with us in battle

But remember that the world's best tailors are men. The veteran soldier gets to be pretty handy with a needle and with an iron.

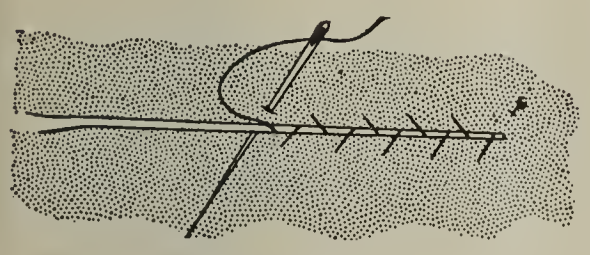
Usually you will be able to use tailors and cleaning shops—whether they are the QM's, C&E shops, the Quartermaster laundry and dry-cleaning plants, civilian shops or friendly natives interested in picking up an American dollar or C ration. It doesn't matter who does your laundering or sewing just so long as it gets done. You should learn how to do it yourself, remembering again that timely repairs and washing will make your clothing and equipment last longer, thus saving you money.

The name for the sewing kit is housewife. Various types are on the market but most of them are too fancy. Get yourself some sort of a little bag or box to carry the stuff in and make up your own. Get an assortment of needles. You'll find that the big thick ones are easier to thread but are harder to sew with. Thinner needles are worth the extra trouble in threading because they are sharper and you have less trouble sewing on stiff shoulder patches. For putting large buttons on something like a field jacket you should use heavier thread and larger needles.

Thread comes in thicknesses numbered from 100 (the very finest) down to about 8 (the heaviest). The PX will usually

have a fairly good assortment in the colors you'll need for uniforms. Sizes 50 to 70 are recommended in the sewing books for medium lightweight materials; most of our uniforms would fall in this general category—poplin, khaki and wool. Use a slightly heavier thread for sewing on buttons—size 30 or 40—and double the thread. For very heavy material such as canvas you can get a size 8 thread—you'll need this only for such things as leggins, web belts and covers for weapons and trucks.

Needles are also graded as to size; experts recommend size 7 or 8 for your size 50 to 70 thread; size 6 for the thread you'd use



Mending a straight tear

for buttons; and a size 3 needle for heavy material.

You might not suspect it to look at some soldier handiwork on buttons, shoulder patches and mending, but thread comes in different colors. If it is going to show, be sure to get a complete assortment of colors —o.d., suntan and the proper color for shoulder patches and chevrons. If it seems to you everyone should know this, just look around and see how generally it is ignored.

Pick up an assortment of the proper size and color buttons. Check the QM sales stores and the PXs first. As a noncom you'd better be prepared to furnish an occasional extra button to one of your men.

There's nothing really hard about sewing on a button. You could train an ape to do a passable job. But there are a few tricks. Assuming you have exactly the right button and the proper thread and needle, and are going to sew the new button right where the old one came off (or was shattered by specially built laundry machinery), here's how to do it. Experience will teach you how much thread you'll need—the tendency is to make the job unnecessarily hard by using too long a piece. Double the thread and knot it. Now, a button shouldn't lie actually flush against the cloth; you want to have a sort of stem of thread under the button as you sew. Here's how you do it. Place a straight pin across the top of the button so that your stitches will pass over it. When you've gotten the button securely fastened, pull out the pin. Then wind the thread around the threads between the button and the fabric to form this stem. Finish the job by bringing the needle through to the reverse side of the material, fasten the thread there by running the needle under and over the stitching several times, and cut.

In a button with four threading holes in it, cross your threads so that they form an X pattern or run them parallel, according to how the other buttons have been done. To give a button additional strength you can sew a smaller one or a piece of material folded into a small square on the back side.

To mend a straight tear, stitch back and forth as shown in the illustration. In this sort of work be sure you use the proper sized needle and thread. It's harder to do neat work with a needle or thread of too large size.

An L-shaped tear is much the same problem. Smooth the edges toward each other and work the same way as for a straight tear—start a little distance from one end of the tear and continue a little past the other. Make a couple of extra stitches at the point of the tear for strength. On light materials it's easier to put a piece of tissue paper under the tear while you're doing the job. The paper will tear away when you've finished.

Darning

Get something that resembles a darning egg to place under the hole and stretch the material into approximately the shape it'll have when you've finished the darning. (A light bulb does OK.) Don't trim the edges of the hole. Using small stitches, start about a quarter of an inch from the edge of the hole and work across to a few stitches beyond it on the other side, laying parallel strands of thread across the hole as you go. When you've filled the hole with threads going one way, turn and proceed the same way with threads at right angles to the first set. The only difference is that the second set of threads are to be woven alternately over and under the first set of threads *(see illustration)*.

You want your darn to be as flat as possible so as not to rub a sore spot on your foot. For this reason, don't knot either end of the thread—the small stitching will hold the ends and will also allow for shrinkage.

If you do much of this sort of work, get yourself some darning thread and darning needles.

Patching

Some holes in uniforms will be too big to darn conveniently. In this case put in a patch. (But don't try to patch socks.) Cut away the ragged edges and make a square hole along the threads of the fabric. Cut a patch about an inch larger than the hole. The patch will normally have to match; cut it from some part of the garment that is not visible, or get the supply sergeant to give you a piece of salvage. Baste the patch under the hole —that is, sew it on temporarily using large stitches that can be removed later. Then sew on the patch with the same small stitches used in darning, going back and forth across each edge of the patch and running about five stitches on each side past the edge of the hole. Reinforce the corners by cross stitching. Then remove the basting and trim any loose threads.

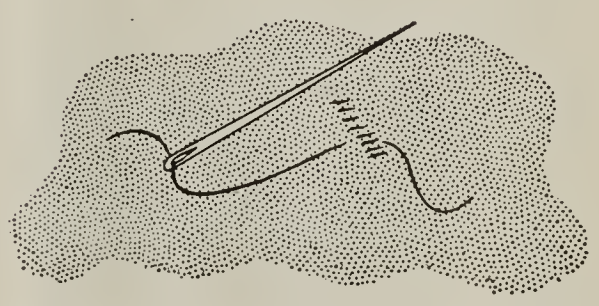
On dress uniforms you will probably want to have this sort of work done professionally—unless you get to be a real shark at it yourself.

Shoulder Insignia and Chevrons

At the rate we're going at this business of making a sharp noncom out of you, it won't be long before you'll be sewing on a new set of chevrons. Or maybe you have become so loaded with soldierly information that the first sergeant can't stand to have you around any longer, and you might be on the point of having to sew shoulder insignia of some new outfit on all your uniforms.

So here's the poop on that particular operation. Again, get the right needle and thread. To be sure you're not wasting your time by getting the insignia or chevrons on in the wrong place or crooked, baste them on with white thread. The object is to make the stitching as nearly invisible as possible. You can do this by using the right color of thread and by making short over-and-over stitches along the very edge of the insignia or chevron.

Be careful that you don't get a puckered



Darning. The first course of stitches has been completed. The second course goes at right-angles to the first. There's no knot in the end of the thread.

effect. You will also have to be careful not to hook the material on the inside-arm portion of the sleeve with your needle. You can help avoid this calamity by putting a field manual inside the sleeve while you are sewing.

Pressing

A good outfit will have irons and ironing boards available. You can have your men chip in to buy the stuff. It will save money in the long run and it will certainly make them look better.

To press woolens, use a damp cloth between the uniform and iron. Applying the iron directly to the wool cloth will put a shine on the uniform. But khaki can be ironed by applying the iron directly. The main trick to ironing is to have the iron at the proper temperature for the particular fabric you're working with. Modern irons come with automatic heat controls.

Many squads buy steam irons because they do a better job. This kind is heavier than the ordinary electric iron. It is filled with distilled water (ordinary tap water contains minerals which will eventually clog up the little steam outlets).

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Give a doughboy a job and he'll do it—even if it's commanding "incompatible" ammunition on a Japanese mountainside

EXPLOSIVE ASSIGNMENT

Major Robert A. Scruton

LATE in 1950, along with several other line officers in the Korean pipeline, I was given a few hours of concentrated instruction in ammunition by Ordnance, and placed in command of one of their ammunition depots in Japan. I believe Ordnance was short of officers to operate their expanding enterprises; otherwise, I'm sure, they would have kept the business in the family. Only incidental is the fact that my letter requesting return to the Infantry was disapproved with vigor.

This alien, out-of-branch assignment has been thoroughly amusing, thoroughly frustrating, and the most educational kind of experience. I see now that this chance to see how another branch operates was beneficial to me. However, should you be looking forward to a technical discussion, I must refer you to the Ordnance Safety Manual. Even now, after fourteen months of operating a forty-thousand-ton depot, I am vastly ignorant of the niceties of the profession. True, my chief storage planner (also a doughboy) and I have somehow managed to avoid the more violent lightnings of the Ordnance Corps, but this is probably because the depot is highly inaccessible and higher echelons find it difficult to supervise us very closely.

We took over the depot on Christmas Day, 1950. My "staff" included two infantry captains and eight sergeants of assorted branches, all as knowledgeable as myself. There was no old commander to relieve, no turning over of papers—I'm certain that never before had Americans ventured so far up the wintry mountains of Japan. The place *had been*—and I purposely emphasize the verb—a Japanese naval arsenal, but it had fallen into so monumental a state of decay that not even a jeep could get over its roads. I had been assured, however, that properly repaired and properly planned, the place would hold about forty thousand tons of ammunition, and I must, I absolutely must, be ready to start receiving it "on or about 5 January." I looked at the single-tracked railroad that had lost its battle with the rust and wondered if the Ordnance Corps intended to air-drop the ammo on us.

This impertinent thought was interrupted by a tearing, rending sound. The newly appointed executive officer had crashed through the apparently firm planking of our headquarters floor, a circumstance not in keeping with the dignity of his position. I remember that he climbed stiffly out of the wreckage, shot a look at the snow and the forests and the leaden sky, and issued an impolitic statement.

"Correct me if I'm wrong, gentlemen, but I believe the goddamned Ordnance had shanghaied us to Siberia!"

"Merry Christmas, Captain," said one of the assorted sergeants.

IT was funny, I suppose, but not so amusing that I could long forget that forty thousand tons of ammo I was to store according to the meticulous regulations of the Safety Manual, a copy of which would "be made available, when available." Disconnected bits of knowledge ran through my head and, I'm sure, through the heads of the staff: "Explosive Limits," "Class 7 and Class 10 Storage," "Cubic and Spacial Factors" (Space, the instructor had said, is very important; if you figure your cube right, you'll get your space right), "Quantity Distance," "Compatibility" (Some kinds of ammo don't like each other, like HE and WP, and can't be stored together; incompatibility is a horrible offense),[1] "Code and Lot Integrity," and "Dunnage." I recall that I achieved a sort of classroom fame by inquiring of the instructor what he meant by "dunnage." He had been talking about it at some length but I wasn't quite sure what it was.

"Dunnage!" he croaked. "Dunnage is lumber—I *told* you that. You use it to stack ammunition with. You never want to have any scrap dunnage lying around. It increases the fire hazard."

Well, at any rate I knew what dunnage was, and I issued an order about it. "There will be no scrap dunnage lying around this depot," I said, "because it increases the fire hazard." The staff solemnly entered the order in their notebooks. You wouldn't think it a difficult order to enforce, but scrap dunnage is a ubiquitous thing. Higher inspectors invariably have been able to find some of it lying around, although I must say they once missed a whole magazine full of incompatible ammunition.

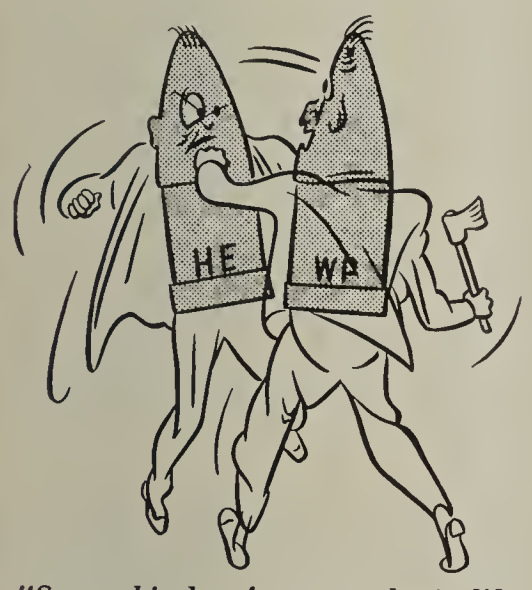
It was this incompatibility angle that bothered me most of all that Christmas Day. I had a monstrous sheaf of documents listing all the different kinds of ammunition we were to receive, ranging from eight-inch shell (to be stored as Class 7) to forty millimeter (to be stored as Class 4), and including several brands of chemical ammunition which are definitely on the outs with HE. As we toured the dilapidated magazines, trying to figure out a logical storage plan, I could visualize the true meaning of chaos. A maximum of advice was

MAJOR ROBERT A. SCRUTON, Infantry, was ordered to FECOM from The Infantry School late in 1950. But instead of commanding a battalion of infantry in Korea, he found himself an ardent and constant reader of the Ordnance Safety Manual. The hows, whys and whats of this surprising event he tells here vividly—and, as befits a doughboy, lustily.

[1]Incompatibility actually means this: suppose you have HE and WP stored at the same site. You then have *two* different hazards in one place—the high explosive hazard and the fire hazard of white phosphorus. You can also have incompatibility within HE groups of ammunition. For example, separate loading shell, such as 155mm, can mass detonate, whereas certain kinds of 90mm or 105 howitzer, will detonate singly. Therefore, you would have incompatibility if you stored 155 shell with 90mm or 105mm.

needed, whereas it appeared that a minimum was intended.

The next day, though, I felt more kindly towards our Ordnance bosses. A captain of Engineers appeared with half a million dollars worth of machinery and began repairing the depot. A polite, gold-toothed little Japanese railroad expert appeared, bowed, accepted a cigarette, and begged permission to repair the railroad. A frock-coated representative of a great labor firm explained toothily that his company had been



"Some kinds of ammo don't like each other"

honored with our labor contract, that he was at my service, and would I drink sake with him? Twenty-five GMCs, complete, believe it or not, with tool kits, arrived for the depot motor pool. And a mess sergeant with the look of an excellent thief reported with pots and pans and a ton of food. Somebody at a higher level was coordinating.

LATER in the day further evidence that we were not a forgotten stepchild appeared in the form of a civilian known as a Department of the Army Ammunition Inspector who arrived with a cowhide suitcase, expressed dissatisfaction with his quarters, but informed me that he had come to give advice.

"Did you say advice?" I asked him.

"Yes. I'm not supposed to interfere with your operation unless you do something wrong. Then I advise you against it. I wonder if you could give me a heater for my room?"

I didn't have a heater to give him, but we had a few drinks to warm him up. I drained him of advice.

"The first thing you want to do," he told me, "is tack up a lot of 'no smoking' signs. Then you want to prepare your fire symbols."

"Fire symbols?"

"Yes. You know. Ammunition with missile hazard has a number four symbol on the magazine—that's because the fire department will know what it's up against if it catches on fire. Stuff with not much missile hazard, like powder, has a number three symbol, and so on. It's all in the book. You'll have to train your fire department. I wonder if you could give me some more blankets? Thanks. Now, what about your planographs?"

"My *what?*"

"Your planographs. You know. You have to make a storage diagram for each of your magazines. You figure the cube of the ammunition against the total cube of the magazine, making allowance for aisle and air space. The diagram is supposed to show where each lot of each code is. Watch out you don't go over your explosive limit. What about your waivers?"

"Well," I said, "what about them?"

He looked at me keenly. "Oh," he said, "you're not Ordnance, are you?" He sighed. "Well, I'll tell you, these waivers are a good thing. Sometimes you can exceed your explosive limits if space is at a premium. Right now it is. So if you go over your explosive limits, you write it up and send it to GHQ. If you have a good reason for the violation, they'll approve it and you're in the clear."

"Sort of passing the buck," I said.

"Sort of. By the way, what's your policy on overtime?"

"Overtime? Hell, we just work and keep at it till the job's done."

"In your case maybe, in my case, no. You see, I work only forty hours a week, but I'll be glad to log some overtime if you approve. The Colonel said it was up to you."

Perhaps I should have mentioned the colonel before this. About fifty miles away, down where civilization began, was a very wise and very tolerant lieutenant colonel of Ordnance whose unenviable job was over-all supervision of three depots much like mine, except that they were manned by Armor officers. I can only imagine what this colonel thought when all of us first reported to him, but he was to give us a lesson in leadership that I will not forget. He guided himself on the assumption that line soldiers will do a job if you give them the chance, and he did not harry us or supervise us to death. He would come out and look around, and what went on must have appalled him in the early days. On the infrequent occasions when we had done something right, he would tell us about it in such a way that you felt good clear through. But he must have spent some sleepless nights, for it is an easy matter to blow up forty thousand tons of ammunition with ignorance alone.

BY 5 January the depot was in fair shape. The roads had become negotiable; we had hired and trained some former goatherds to drive the GMCs; our forty magazines no longer leaked; the labor force had moved in with teakettles and bags of rice; appropriate fire symbols atop the magazines warned of their particular hazards; a forest of "no smoking" signs cautioned smokers that their vice was a punishable crime; our thieving mess sergeant was producing an abundance of steak and pie; the Ammunition Inspector had a heater for his room; and I had forty planographs ready on my desk.

Everything seemed firmed up. I called a final meeting of the staff, but they were so tired of meetings that they had no questions.

"Well then," I said, "we'll just sit back and wait for the goddamn ammo."

While we are waiting for the ammunition, I expect I'd better tell you how our setup was supposed to work. The officers did the planning and watched over the safety factors, explosive limits, and the multiplicity of data ordained by the Safety Manual, which is a far cry from FM 7-10, Rifle Company, Infantry Regiment. The Ammunition Inspector walked around and gave advice, though he did no actual work at this stage. The laborers, under their foremen and the over-all management of the frock-coated



"I work only forty hours a week but overtime might interest me."

representative of their firm, hauled the ammunition from the railhead to the magazines and stacked it according to the planographs. When the ammunition was stacked, inventory people counted each round, because I had to account to the Colonel, who had to account to some very high wheels indeed. And the eight sergeants acted as pushers and struck the laborers on their heads with theoretical clubs if a tendency to goldbrick was observed. On paper it seemed a fairly simple setup, but I know now that I did not give

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enough thought to the mechanics of the thing. It was the mechanics of the operation that damned near drove us nuts.

The first increment of our forty thousand tons puffed into the depot about 1800, 5 January, and I went down to the railhead to observe the disposition of my forces. The railhead officer had marshalled his goatherd-operated trucks, the assorted sergeants were diligently cussing the grinning little laborers, and ammunition of all kinds, sizes and shapes was pouring from the railcars to the GMCs and being shuttled off to its predetermined niche in the magazines. That is, I hoped it was going to its predetermined niche.

"How's everything?" I asked the railhead officer, who, in defiance of his rear-echelon job, proudly wore his Combat Infantryman Badge at all times.

"Just fine," he replied.

"That R2BLA," I said, pointing to a truckload of 155mm shell. "Don't forget to store that as Class 7."

"Right," he said.

In case you'd like to know what I'm talking about, what I meant was this; Stored as Class 7, the R2BLA (a code for 155 shell) would have not more than 15,000 pounds of explosive per stack, and each stack would be separated from others in the magazine by 47 inches. The theory is that if one of the stacks blew up, the whole magazine would not necessarily go, in view of the limited explosive content per stack and the distance between stacks. Stored as Class 10, however, which calls for much less space between stacks, the entire magazine would go. Class 10, as you can see, increases your storage space but also increases your hazard. Ordnance is very safety-minded and leans toward the lesser hazard, but sometimes overriding considerations of space would force them to violate their own concepts and then they would be very unhappy and strive to get themselves off the hook with waivers.

". . . that R4FSB," the railhead officer was saying, "is mixed up with the R4HIM. Not our fault; came in that way. I'm segregating at the railhead. O. K.?"

"Fine thing," I said. "How's your PIEAA?"

"You mean the 155 without the supplemental charge?"

"Right," I said.

"Seems O. K. Few grommets missing, though."

"We'll have to fabricate some locally," I said, remembering a directive I had received on the subject.

"Right," he said.

"Watch your scrap dunnage," I warned him.

"Got it under control," he said.

We talked glibly in veteran ordnancese for a few minutes, and then I told him I was going to bed. "Call me if anything goes wrong."

"Right," he said.

I was awakened several hours later by one of the sergeants. "Been a foul-up, Major; captain says you better get up."

IT was a foul-up all right—the worst sort of mess. It had started when three of the goatherds overturned their trucks into the rice paddies. While the railhead officer was getting this straightened out, his guiding hand had, of course, been absent from the railhead. Whereupon the Japanese foremen had decided that our planographs were illogical. For two hours they had been storing the 155 shells as Class 10, had saved, of course, considerable space, and had proudly brought their achievement to the attention of the railhead officer just as he was winching out the last of the trucks.



"J---- C----- on the mountain! Look!"

But this was not all. The Japanese foreman had also decided to store the 4.2 HE Mortar (R4NAB) with the 4.2 WP Mortar (R4NBA)—a horrible case of incompatibility. After all, they explained, the codes were almost the same, and why waste time segregating them into different magazines?

It is futile to cuss Japanese. The more you rave, the blanker they look and the lower they bow. Besides, you lose face when you lose control. An attitude of imperturbable dignity, I've found, is the best way to deal with them.

"Never again," I told the foremen, as they clustered around us, "never again do I want you to change our plans. Do you understand?"

"Hai, hai!" they said in chorus.

"If you change our plans," I went on, "everything will get very confused and the Taisho (general) will be very angry."

"Hai, hai!" they chorused understandingly, for most of them had been in their army.

"But," I continued, "we are not gods. We may make mistakes. If you think you have a better plan than ours, please come and see us about it. But come and see us first. Do you . . . ?"

"J---- C----- on the mountain!" said the railhead officer fervently. *"Look!"*

I looked. Up the railhead a couple of hundred yards, alongside a stack of eight-inch shells crammed to the fuse wells with TNT, was a crackling bonfire of scrap dunnage. Gathered round it was a gang of laborers boiling tea, some of them squatting on top of the shells. Eternity was staring us all in the face.

I must admit that my attitude of imperturbable dignity deserted me when the laborers explained the reason for the fire.

"We were cold," said a spokesman, bowing. "It is very cold in Japan at this time of the year. We must heat tea to warm our bodies. Besides, you gave permission to burn the scrap."

"In your goddam tea shack I said it was okay to burn it!" I shouted at him. "Not on top of the bloody ammo, you damned goon! You want to blow the place up?"

"TNT," replied the spokesman with irritating dignity and some truth, "must get very hot to explode. Our fire was ten shaku (feet) from the bombs and was therefore safe in our way of thought. However, all is clear to us now, and we are sorry to make you angry. In the future we will make our tea and burn the dunnage in the tea house you have so kindly given us to eat rice in."

"Damn right you will," I said, only slightly calmer.

"Worst mess I ever saw," observed the Ammunition Inspector, who had been inspecting activities. "Worst in all my experience."

"Well goddam it," I snapped at him, "you're on overtime till you get it straightened out."

It was a profane night—the first of many.

The Colonel had lunch with us the next day. He took the news calmly, and it seemed to me that I was not entirely in the doghouse. Was that a twinkle I saw far back in his eye?

All he said was, "Well, get it cleaned up. Watch your operation closer than

you've ever watched anything before."

He got up, went out to his car, and drove away. It was a wonderful opportunity to find fault, but he resisted it. Yet somehow I knew that I had better not let the same mess happen again. Other mistakes, yes, but not the same ones.

AND there have been other mistakes, of course, but not the same ones. With Ordnance, two strikes is usually out—you can't afford to have it any other way with ammunition. The multitude of regulations Ordnance has devised for the safe receipt, storage, and shipment of explosives often seem petty and overcautious—product of ambitions pen of idle staff officers. But the more you deal with ammunition, the more you recognize the reason for it all: nothing more, nothing less, than total safety in a sensitive business; nothing more, nothing less, than getting the ammunition to the combat troops in the best possible condition. The fact the Ordnance was able to supply gigantic tonnages to Korea at short notice and on time, with makeshift personnel and yet safely, is a tribute to their system.

I remember well a recent inspection of my depot by a high-ranking expert. I was confident and a bit cocky, because not only was I compatible all over—no mean feat—but there wasn't a speck of scrap dunnage in the place. I expected high words of praise and I got—deflated.

"Your depot is in fair shape," he pronounced, "but I'm not going to give you a passing mark. You don't have calcium chloride in your fire barrels."

Calcium chloride, he went on to explain, would keep the water in the barrels from freezing. "If you had a fire in one of your magazines," he said, "the only chance you would have would be to put the fire out quickly. You wouldn't have time to break the ice in the barrels with an axe you probably couldn't find."

WELL, I still think ammunition is something you fire from a gun. But if at any future time I find myself firing it instead of supplying it, I'm going to pause just a second and think of that poor wretch of a depot commander way back behind the lines and up to his ears in scrap dunnage. And I'm going to wonder if he was compatible. And I'm going to wonder if he had calcium chloride in his fire barrels.

He probably will have. Otherwise it is just possible I won't get the ammunition I want, on time. Ordnance doesn't intend to let that happen again.



REPORTS AFTER ACTION

The supporting arms and services in Korea

THREE RIVER CROSSINGS

Narrator: **Capt. Richard P. Lepke**

Historian: **Capt. John G. Westover**

THIS IS ANOTHER in the series of after-action reports covering the work of supporting arms and services in Korea, prepared by Army historians through interviews. They are published in the COMBAT FORCES JOURNAL by permission of the Office of the Chief of Military History, Department of the Army.

After a series of long moves and fights around the Pusan perimeter the 3d Engineer Combat Battalion, 24th Infantry Division, was in a rest area at Kyongsan on 17 September 1950. I commanded Charlie Company. At 2300, the battalion staff and company commanders were summoned by the battalion commander, Lieutenant Colonel Peter C. Hyzer. He told us that we were to make a series of assault crossings of the Naktong River, carrying the entire 24th Infantry Division. The operation was to jump off at 0245, 19 September 1950, south of Waegwan and northwest of Taegu.

Able and Charlie Companies were to get the tough job of carrying the two assault regiments of the 24th Division. Able would carry the 19th Infantry while Charlie would be responsible for the crossing of the 21st. The regiments would cross the Naktong simultaneously, some six miles apart.

At the time of this meeting, not even the battalion commander had had an opportunity to make a reconnaissance or view aerial photos of the crossing area, even though the operation was to begin in some twenty-seven hours. The battalion had no assault boats although we were promised that they would be delivered to the crossing sites by corps engineers. But we would receive one boat per company on the following day to familiarize the men with the equipment.

A few days before this order was issued we had received 100 Koreans per company as replacements. A training program had been started for them but not much progress had been made because of our constant preoccupation with combat. All communication had to be channeled through their interpreters or through one of our noncoms who spoke fluent Korean. The infantry regiments also had Korean fillers.

None of the engineers had received any assault training in Korea, and many of the men who had received such training in Japan were now casualties. Probably not more than ten per cent of the U. S. soldiers in our companies had launched an assault boat since basic training. Likewise the infantry was without assault river-crossing experience. Nor was there time for much coordination between the engineers and the infantry. Our Korean replacements had never even seen an assault boat.

THE next day, while the men were familiarizing themselves with the one boat each company received, the company commanders and key officers of the battalion staff joined the infantry in making a reconnaissance of the Naktong. Our reconnaissance party was much too large; six jeeps and twenty people. Near the river bank we came under enemy observation and received some mortar fire. No one was injured.

CAPTAIN RICHARD P. LEPKE, Corps of Engineers, is now on the faculty of The Engineer School, Fort Belvoir, Virginia. He was interviewed at Fort Belvoir on 20 September 1951 by CAPTAIN JOHN G. WESTOVER of the Office of the Chief of Military History.

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The engineer battalion was bivouacked twenty-five miles from the proposed crossing sites. The route to the crossing sites crossed the Kumho River, but all of the bridges had been blown. An underwater (sandbag) bridge that had been operated by the North Koreans was being used by our troops. Unfortunately, it would not handle light vehicles because of the depth of the water and all jeeps had to be carried on a small ferry.

As we returned from our reconnaissance we found traffic east of the ferry backed up for a couple of miles, bumper to bumper. The road was only one and a half lanes wide and the heavier vehicles were unable to move to the underwater bridge until the jeeps of the column moved on to the ferry. These were 24th Division vehicles moving up for the crossing, mixed with vehicles of corps engineers (repairing the underwater bridge), and a scattering of trucks from other units.

On return from the reconnaissance at 1700, I found Charlie Company loaded and ready to go. Attached to us for this crossing was a platoon of Baker and one of Dog. Since we had only our organic personnel and equipment, and carried no assault boats to reveal our intentions, we were allowed to move during daylight. We moved independently of battalion.

There was no traffic control but we moved normally until we approached the ferry. Then we had to move slowly and we lost a full hour. Still we reached our initial assembly area near Naksan-dong by 1930.

I left Charlie Company in defilade and moved forward to the crossing site with the two platoon leaders who were each to be responsible for the moving of an assault infantry company. We planned to cross the two companies abreast, about a hundred yards apart. I showed the lieutenants their sites, found an abandoned foxhole near the river which I claimed as my forward CP, then returned alone to the company.



I had to infiltrate the company out of the initial assembly area for it was not quite dark and on one flat stretch of the road enemy mortar fire was being concentrated. We closed unharmed in our forward assembly area at 2100. It was an apple orchard just 300 yards to the rear of the crossing sites. A prominent house nearby came to be a favorite target for artillery fire next day.

The Naktong River at this point was some four hundred feet wide, and had a moderate current. The river bank at one site was a sheer drop of some seven feet. This was cut down by the 2d Platoon after dark. At the second crossing point the bank was cut by a path which led to the beach. From the bank to the water's edge was a flat sandy beach some 100 yards wide, punctuated only by some abandoned tactical wire. The beach was not strong enough to hold vehicles.

I assigned the 1st Platoon to the first crossing site, the 2d Platoon to the second site. The 3d Platoon was to unload the boats when they arrived and to organize the infantry into boat crews. To the attached Baker Company platoon I gave the job of laying a pierced plank roadway (of airstrip type) over the near beach as soon as the first wave was landed. This would facilitate jeep-ambulance and ammunition traffic. The attached Dog Company platoon was to sit by in reserve and await orders.

THE infantry started arriving in the final assembly area at 2300 and closed in the area by 0100. We had plenty of time to break them down into boat crews and give them elementary instructions, for the assault boats still had not arrived.

The infantry regimental commander was much upset over the delay but there was nothing we could do. I saw him talking to Lt. Colonel Hyzer several times and I know that messengers were sent out to try to locate the missing boats. At one time the regimental commander mentioned calling off the attack for it did not appear that the crossing could be made during the dark.

Finally, at 0400, the twenty-eight assault boats arrived. They were loaded both on pole-type trailers and in the beds of 2½-ton trucks. It is hard to unload an assault boat from the bed of a truck and this slowed down the operation. Worse, however, was the disappearance of the drivers as soon as the trucks halted. We had to rout out our own drivers to spot the trucks and trailers.

After all of the boats and their engineer crews were lined up along the road near the river bank, the infantry came forward. Daybreak came as the first wave was on the water. There was no enemy fire at first, but as our boats reached the center of the stream an extremely heavy volume of small arms fire hit them. Mortar and SP fire began to strike the near bank and the assembly area.

Apparently our simple instructions had not been understood by the Korean infantrymen for they refused to disembark on the far shore, and a few returned to the near shore. Sergeant Weird broke the stock of his carbine over the hand of one man to get him to release his hold on the guide rail.

As soon as the infantry landed on the far shore, the boats immediately began



The third crossing. Engineers from Company C, 3d Engineer Combat Battalion, ferry across doughboys of the 5th RCT.

the return trip. Eight of the twenty-eight assault boats did not make it back. In some cases the current carried them too far downstream and the inexperienced paddlers could not control them. In others, the boats were so riddled by fire that they sank and their engineer crew returned in other boats. Of the Korean engineers who went with the first wave, none was known to return. Maybe they misunderstood their mission and stayed with the infantry. Maybe they drowned, for we had no life jackets. Later when we tried to round up all of our Koreans for replacement boat crews we could locate only twenty-two of our original hundred. Many had just conveniently disappeared for a short time, however.

AS the returning boats reached the near shore, the enemy turned his fire on the second wave that was moving to the beach. These infantrymen took cover on the beach by laying on their stomachs near the water's edge until Sergeant Weird called for them to get loaded and help their buddies on the other side. Hearing this, one sergeant jumped up and yelled, "If the engineers can stand up and take it, so can we!" To a man the infantry loaded up.

As soon as we counted our boat losses we sent an urgent request to battalion for replacements. In an hour we received sixteen. We also got a boat-repair detachment which was attached to battalion for this operation—but these men claimed they had no equipment with which to make repairs. Only the sergeant had enough courage to leave the cover of the orchard and go onto the beach to survey our damaged equipment.

The fire on the near beach made it impossible for the platoon of Baker to lay its roadway. Some self-propelled guns kept firing on our assembly area and beach until 0930.

The infantry on the far shore reorganized quickly but had strong resistance from the enemy. Our artillery helped and so did the Air Force. When the planes began to use napalm some of the North Koreans panicked and ran.

The fighting on the far shore lasted about thirty minutes. The infantry carried air-identification panels on their backs and we could see little envelopments and assaults taking place. Our men were aggressive and they moved right up to the enemy without hesitation. Soon we watched the panels moving up the draws, over the crest, and out of sight.

We kept crossing the infantry until well into the afternoon. By that time we had crossed two battalions of the 21st Infantry and were working on the third. The crossings had cost my company forty-two men, only eight of whom were U.S. troops. It cost the 21st Infantry six killed and fifty wounded. What happened to these men I don't know for we had no time to locate the missing after the operation was over.

At noon, while we were still paddling the 21st Infantry across the Naktong, I was alerted for another crossing. Charlie Company was selected to cross the Naktong again that very evening—this time carrying the 5th Infantry above Waegwan. We were selected as we were the only company in the battalion assembled at one nearby site. Dog Company was to take over our present operation and support the 21st Infantry on the far shore.

I took my executive officer and one sergeant with me on a reconnaissance of the new site. We joined Lt. Colonel Hyzer and some of his staff officers, and proceeded to Waegwan where we met the infantry regimental commander, Colonel Throckmorton. Colonel Throckmorton told us that his regiment was clearing the bank of the Naktong as far north as Hill 303, where he was to make a juncture with friendly troops. Hill 303 was the commanding height but it was not yet taken. In any case it would be necessary to cross at least one battalion that night, even if the east bank was not cleared of the enemy.

The attack was parallel to the river bank and Hill 303 was some ten miles north of Waegwan. I was given leeway to select the crossing site anywhere in this ten-mile zone. I moved my small party to the rear of the lead company of the 5th Infantry. We had to hit the ditch several times when the enemy put up small bits of resistance.

At 1430 the infantry still had not reached Hill 303 so I decided that to get a daylight reconnaissance I would have to select a crossing site somewhere between my present location and Waegwan. Two miles north of town I found a site where the banks, turn around, assembly areas, approaches, and the far shore looked pretty good. By radio I ordered the company to meet me on the road, and I started back to Waegwan.

In Waegwan I learned that the 21st Infantry, which we had crossed that morning, was moving along the far shore of the Naktong. This meant that we could make an administrative crossing. I inspected a blown-out bridge in Waegwan and decided that this would be a good site. Charlie Company reached town almost as soon as I did, and the boats were delivered to us by corps engineers within another thirty minutes. By 1700 or 1730 we began to land the infantry on the far shore. We improvised a ferry and began moving men, jeeps, and equipment on it. We had one battalion across within forty-five minutes.

Our company kitchen was set up in an orchard in Waegwan and we fed the men in shifts. But before I got a chance to eat, I was ordered to cross the other two battalions of the 5th Infantry some eight miles north of Waegwan, near Hill 303 which we now held. I moved out to make a reconnaissance before it was completely dark.

A site was selected, but as the infantry seemed in no hurry to cross we held off till the following morning, the 20th. We continued to operate the ferry at Waegwan all night of the 19-20th and left one platoon in Waegwan for that purpose. The other two platoons moved up to the new site.

In the crossing of the following morning our site was defiladed, we had infantry on both flanks to give covering fire, mortars were emplaced, tanks and SP guns were registered, and the air support was excellent. The Air Force bombed and strafed a village near the crossing site and maintained armed reconnaissance overhead. The crossing was unopposed.

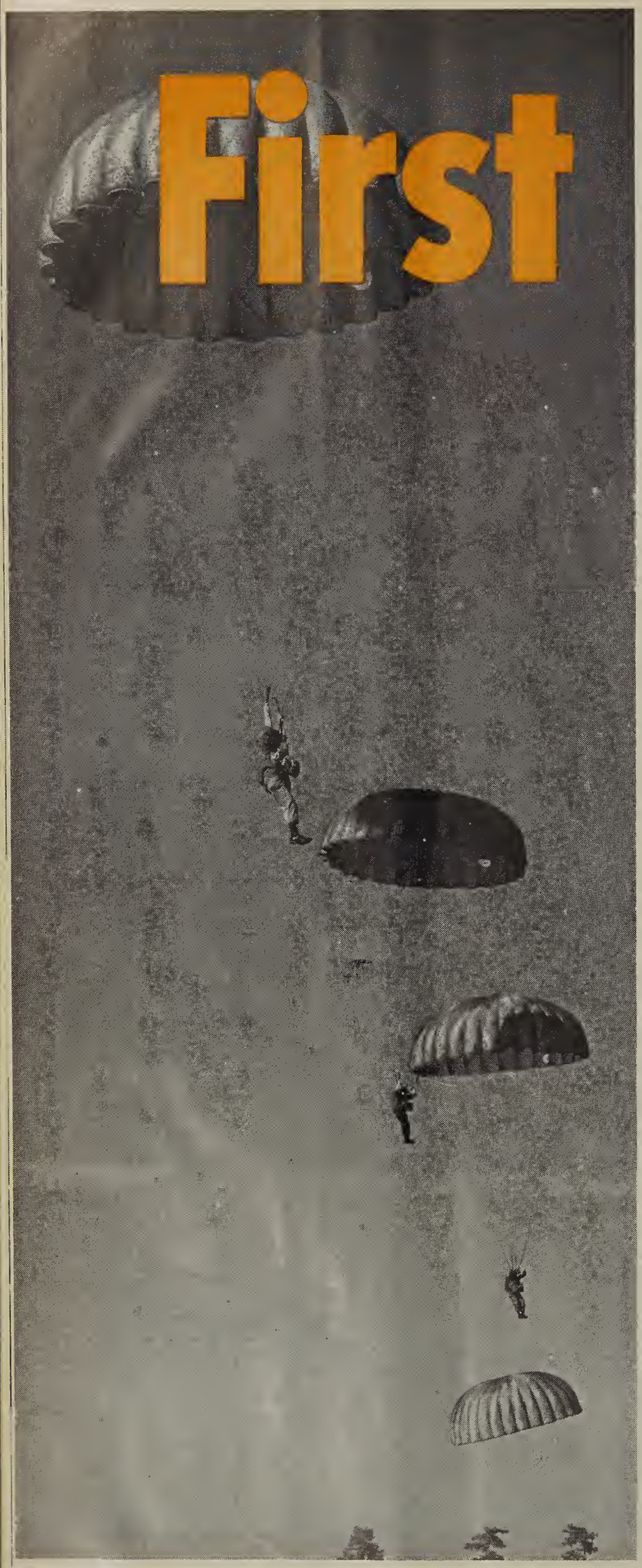
We crossed two battalions before noon and I loaded my men to move on. I reported to battalion in Waegwan—hoping we could get some rest. Instead we were ordered to support the 19th Infantry in an attack on Sangju. We gave general engineer support in this operation. The encounter was brief for the enemy was surprised by the flanking attacks which our river crossings made possible.

Within three days Charlie Company had received orders, planned and executed three river crossings, supporting two different regiments. In the same period it had given general engineer support to a third regiment in attack.

The normal time to plan a river crossing is usually a week. In the crossing of the Ruhr River in Germany, my engineer battalion had three months of preparation.[1] There we had actually formed the exact crews and carried the same groups of infantry in "dry run" crossings of a similar river under similar conditions. How different it was in Korea!

[1]2d Platoon, Co. B, 121st Engineer (C) Bn, 29th Infantry Division.

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First Jump

Lieutenant Mac Cook

SO this was it! The day dawned clear and blue
And each prospective trooper knew the fear
That only troopers know at times like this
When weeks of toil and sweat (and secret tears?)
And blistering Georgia days and Georgia dust
Were half-forgotten in the thrill of this—First Jump!
The one big question each man asked himself
Would have an answer now; and all the hours
Of patient drill and endless, hated push-ups
Now would find their pay-off in the sky—
But back to earth, and breakfast first of all.
They ate, and joked, and wished each other luck.
They polished boots, the troopers' prize and joy,
And loudly doubted whether this or that
Companion would quite make the grade, and offered
Mock suggestions not designed to soothe:
"You say you're makin' sick call now, old man?"
"Don't lace them boots too tight. I'll want 'em when..."
"Fall out! Let's move! What makes you men so slow?"
The oft-shined brass now glistens, row on row,
And stern-faced sergeants (sadists, some would claim)
Inspect their men; and woe to him who moves!
("Git down and knock out ten there, soldier. Quick!")

THE long green lines move out, and silent now,
Except for steady, rhythmic marching sounds
And often: "Hup-Hoop-Heep-Horp"
And "Give me ten, damn quick there, soldier. You!"
The even "slosh" and "clank" and "clank" and "slosh,"
As cup met cool canteen at swaying hip;
And deep inside the silent, marching men
A quiet confidence was born, and pride,
As each man knew the time had come to prove
Just how much grit was mixed with common clay.
Erect they marched, all volunteers, and then—
"Route step!" the briefing shack, and "Guide in here."
The major's face seemed sad, a trifle bored;
His phrasing flat (how many times he's made
This speech before!) "Live jump—twelve hundred feet—

LIEUTENANT MAC COOK, Corps of Engineers-NGUS, is a member of the District of Columbia National Guard and a teacher in the Arlington, Virginia, public schools. He served as an enlisted man in an engineer outfit in Europe during the Second World War and was commissioned in the ORC after the war. He attended jump school at Fort Benning in the summer of 1950.

The first of five—a tap-out—eight man stick . . ."
A few polite inquiries from the floor,
A solemn parting nod—and now to work!
As half an hour clicked off the hangar clock
Long lines of smelling, sweating, swearing men
Walked to and fro beneath the long tin roofs.
Like rows of undecided ants they moved,
First grabbing main 'chute here, and there reserve;
The fitting, and the moans and groans, and "Move along."
And back again, and testing, ten times ten.
So now they sit and wait and smoke, and think
Of why they asked for this damn foolishness,
But feeling not one man would quit, not one.
Nor could one man explain to earth-bound friend
Just *why* he ever chose such fool's delight.
"This stupid harness cuts my crotch to hell . . ."
And thoughts and voices blended oddly now,
And past and present fused as time ticked on:
The square-jawed sergeant's off the cuff remark,
"Show me a man that says he's never scared
When jump time comes, and I'll show you a liar!"
And tales of fatal falls and riser burns,
And slips and turns, and panels blown to rags;
And PLFs and double-time galore
And Phenix City's charms, and letters home—
And now two cigarettes are gone, and time
Is gone as well. The men, like giant frogs,
Hunchbacked and pregnant, walk with bowlegged stride
And climb, with labored breath, into the craft
And disappear, each wrapped in quiet gloom.
The wall-bound bucket seats, in long twin rows,
Received them now, and down they slumped in turn
Amid the straps and rings and swinging things
'Neath metal grooves and rails and arches.

THE troopers idly eyed the "boxcar's" crew
In business-like pursuits: a line secured,
Some gadget twisted here, a final check—
And all at once a thousand Model Ts
From somewhere near began a frightening roar
And now the fuselage with chills and trembles
Quailed, and someone shouted, "Safety belts!"
The taxiing plane, still straining to be free,
Pressed forward in an all-out hurtling thrust,
And raised itself, with unsuspected ease,
Above the runway's flat extended arms,
Climbed upward through the haze, and sailed away.
Inside the plane, the fledgling jumpers wait,
Aloft at last, each deeply plunged in thought;
A dim half-light revealed the toothy grin,
The reassuring nudge; but mostly taut,
Impassive men sat—grim, resigned, and still;
Their chin straps tight, and muscles too, aware
That here was Airborne—with the glamour gone.
One trooper wondered gravely if his prayers
Might more effective be above the earth—
At least twelve hundred feet removed toward heaven;
And all, with apprehension ill-concealed,
Glanced toward the open door from time to time
And saw the speeding misty green and blue,
And sensed there, too, supreme reality.

AND now the tall jump-master craned his neck
To brave the rushing air and stare below.
He looked, with casual, calm, and practiced eye,
Until, content with what he saw, he rose
And yelled above the deafening din—"Get ready!"
A conga line of men, on shuffling feet,
Now moved as one, the waiting done at last.
In rapid-fire sequence now commands
And shouts transcend the motors' roars.
"Stand up!" "Hook up!"—"Your silk is showing, boy . . ."
"Now keep that elbow high!" "Equipment check!"
And each man bets his life his partner checks.
"Sound off!" And loud "OKs" reverberate.
"Is everybody happy?"—then, "Hell yes!"
And Number One assumed position there,
Right at the door. The sergeant on his knees
Still looking down, his hairy arm still barred
The door, and Number One tried vainly now
To watch the tattooed girlie on the arm
And thus ignore the landscape far below—
"Go!" And ham-like hand met buttocks hard,
And Number One, head down, eyes open wide,
Jumped into nothingness—He counts and waits . . .
And waits . . . and waits . . . and then the sickening, welcome
Violence of the opening shock . . . and stars!
The drop zone far below, the tiny jeeps,
And toy-like soldiers there; all seemed unreal
And yet quite real indeed. And then the air
Was filled with blossoming nylon, mottled green,
And all was peaceful now, except for shouts:
"Slip left," and "Look around," . . . the plane was gone,
The 'chutes swayed gently as they fell to earth;
The ground loomed larger now, and rising fast,
And—Crash!! Another jolt, but welcome, too.
It's nice the ground was plowed—Oh, yes, the ground;
How good it felt, to rub the shoulders there,
And smell the earthy smells. He lay and laughed
Inanely at the sky—then rose and brushed
His dusty, baggy pants, and trudged away.



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★ CEREBRATIONS ★

Our literate cocktail-hour tacticians stand to receive as much as $10.00 for their contributions to this department. However, the price for those "dashed off" with scant consideration for the rules of composition and rhetoric will be much less. Hold them to four or five hundred words and type them double-spaced.

Snafu in Career Planning

Career planning for officers in the Regular Army can be likened to the weather. Everybody talks about it, but no one does much about it.

The greater portion of the programs as outlined in Technical Manual 20-605 (Career Management for Army Officers) cannot be implemented during periods of expansion or during actual hostilities. But some of it can be carried on regardless of the situation, and in most cases, all of it could be followed in times of peace or static situations.

I wouldn't argue that all officers should be rotated in assignments, regardless of the situation, but this should be done in most branches, especially those arms and services that deal with troops.

Company grade officers should become more thoroughly familiar with all duties performed by their branch before they are considered for promotion to field grade. It is a detriment to the service to have an officer become a specialist while he is still a lieutenant. It will hurt his own career, too.

A new major, Regular Army, should be capable of performing every duty within a battalion of his branch including those of every staff officer.

The secret of a successful career plan lies in the hands of battalion and regimental commanders, and perhaps division commanders. It takes a conscientious and open-minded commander to assign an inexperienced officer as his S1, for instance. This decreases overall efficiency at least temporarily. But with careful guidance this can be overcome.

A unit, in time of peace, is a proving ground for future leaders. Until this is widely recognized, we will have no career plan, and the career ladder as pictured in TM 20-605 will be a ladder without rungs. Some unit efficiency must be sacrificed for individual proficiency.

An officer cannot learn how to become a battalion S2 or S3 by reading manuals. He can learn only by doing. No one can learn to be a motor officer by reading the driver's manual and dropping around to visit the battalion motor pool.

Both Regular and Reserve officers on extended active duty should be rotated. Assign an officer as S1 for three months, then reassign him to another staff job, such as S4, for three months. Then, if possible, assign him back to a company for three to six months, and then perhaps to an assignment as S3. Under ideal conditions, this last should be for at least twelve months. The officer would then have an all-around perspective, and he could go to another battalion with enough experience to handle any assignment commensurate with his grade. To keep him qualified, this system of rotation must continue.

Most headquarters build up a big overhead of highly competent specialists, but how many more could be more profitably assigned throughout lower units. A highly trained man at headquarters may be very helpful in expeditious handling of staff work, but he may be of inestimable value as a lower commander.

Let me relate the experience of one Regular Army officer. Before World War II he was a battalion sergeant major. In 1942 he was discharged as a master sergeant and appointed warrant officer in an administrative field. Overseas, he received a direct commission while in a large headquarters. On returning from overseas, he joined a similar staff section in the War Department. At the beginning of the integration program, now a 24-year-old first lieutenant, he applied for integration but was not accepted, presumably due to lack of troop experience. About a year later, he went to a battalion on a competitive tour, but found himself in two months' time a battalion personnel officer. There was no one else around, apparently, qualified for the job. Then in a couple of months he was assigned to a company —for the first time since his commission four years earlier.

Four months later this officer was given command of a company—but just two months after that it happened again. He was made battalion adjutant. He was still on competitive tour; but to keep within the letters of the regulations (never mind the spirit) he was given primary duty as headquarters company commander. After five months as battalion adjutant, he asked for and got a company again. A little later he received his commission as second lieutenant, Regular Army.

In conformance with regulations this officer now went to a combat regiment for two years of troop duty. His first job there was to activate a new company, which he commanded for five months. Then, alas, history repeated. He became the regimental adjutant, until he went to the Infantry School. Now a captain, he was soon ordered overseas as an Infantry officer, MOS 1542, with only ten months (five months in basic branch and five months in detail branch) company duty to his credit. Is this career planning?

Reporting overseas, he reverted to his permanent branch and asked for combat duty with a company of his branch. But where was he assigned? In the staff section of his branch at the Army headquarters.

Someone, somewhere is not monitoring the assignment of company grade Regular Army officers as it ought to be done. The battlefields of Korea should be used as training grounds, if nothing else is gained from Korea. The officer whose career I've outlined was told that company duty was out of the question for him, because people with his staff and administrative experience are hard to find. I think that I have explained why.

Now our captain is thirty years old —twelve years' service with a permanent commission of first lieutenant. Will he finish another overseas tour without company duty? Will he even get promoted into field grade without ever being in combat? What happens next? When battalion commanders or executives are picked, the first thought is —how much troop duty has he had? Our friend is a specialist, but not by choice.

I'm sure it is the ambition of every lieutenant to command a company, every captain and major to command a battalion, and every lieutenant colonel to command a regiment, and so on. Our entire concept of military service is built around the development of future leaders. It takes more than schools and books and special assignments to accomplish this. It takes closer control of the assignment of company grade officers.

CAPT. JOHN W. LIDDLE

What About the Sniperscope?

I arrived in Korea, fresh from three years at The Infantry School, as full of questions as the class wizard in an Ad-

vanced Course. To some questions pertaining to "school doctrine," I received answers that were more or less sensible —and sometimes favorable. To others, I got nothing except a stony stare that put me in the social category of a man who carries dandruff on his coat collar.

A favorite question of mine was: "What about the sniperscope? Do you use it?"

This was one of the cases where dandruff started falling.

"Sniperscopes? Sure, we use them. We've used them lots of time. Right now we use them and their power packs and carries to weigh down one of the quarter-ton trailers in battalion headquarters."

This was a shock to a man who, remembering jungle nights when he would have sold souls on the Black Market for something to peel the darkness from his eyeballs, had watched Infantry School demonstrations of the infrared devices with wonder and delight.

"You mean you don't like the sniperscope? What's wrong with it?"

They told me.

The sniperscope is too heavy and cumbersome. In an attack, especially over rough ground, it is too heavy for one man. The power pack and rack are an awkward encumberance for a tired man trying to snipe. Should he get a little peeved and drop it—even easily—to the ground the delicate equipment goes out of order. It is entirely too burdensome for a night patrol where men have to move slowly and with great patience through woods and brush.

On a stabilized defensive line, the sniperscope should come into its own. Not so, say the Korea-wise men. Its usefulness is limited by its short range. In Korea, where fog or ground haze is a nightly plague, the range is much shorter. Undergrowth further limits the range. As a result the sniperscope is seldom effective as far out as the tactical wire. The infantry sniper and observer wants to see much farther than that.

The life of the power pack is too short. Use it all night long on an MLR and it must be recharged at least once before morning. So someone has to tote the batteries as far back as battalion, because the battery charger cannot be operated safely any farther forward. Many units keep the battery charger with the service company.

Other night illuminating devices are outshining the sniperscope—literally. Artificial moonlight, created by searchlight beams reflected off the clouds, is SOP



Sniperscope . . . useful as ballast?

across the Korean battle front. The performance of the sniperscope in real or artificial moonlight, drops to near zero. It is at its best on dark nights when the air is clear.

Flares of all sizes and varieties are preferred by the infantryman. These give him clear visibility, close in or far out, and he can use them when he most needs light. When issue flares aren't available, he devises flares and the expedients are more useful to him than the sniperscope.

He has, for instance, started fires a short distance in front of his positions, or soaked demolished Korean houses with gasoline and set them afire when the enemy came. Such blazes, properly placed, throw an attacking enemy in stark silhouette. Every division in Korea has at least one field expedient for flare action. They use shell cases, fuel oil, and numerous other materials.

Moreover, as any short-handed company commander will tell you, the sniperscope requires the constant services of a technician to repair and maintain it. This takes the man away from other duties. Also schools have to be operated to teach sniperscope repair and maintenance.

But condemning the sniperscope doesn't solve the problem of preventing night infiltration and surprise attacks. On-the-spot improvisation is fine, but technology can still help the man in the hole by taking the sniperscope (which is a fine basic idea) and making it lighter and less cumbersome, giving it more range, lengthening the life of the power pack, increasing the intensity of the infrared rays, and making the weapon sturdier. All this plus improved accuracy will make it a useful tool.

Big order? Sure. But so is sitting in a hole at night, waiting, listening, wondering. . . .

CAPTAIN FRANK F. RATHBUN

A Reflection on Retirement

"Canteen Checks" as a subject has been replaced by "Retirement" ever since Public Law 810, 80th Congress, was passed. At the NCO Club Bar, the Post Exchange, or wherever old soldiers meet, sooner or later, and mostly sooner, the topic gets around to:

"How long you got to go for twenty?"

"You're lucky to retire at thirty-eight. I'll be forty-one."

"A guy is foolish to get out at twenty —now if you stay for twenty-one you get paid for twenty-two . . ." And so on until the next time they get together.

This phenomenon is not only peculiar to Regular enlisted men; the recalled Reserve officer, who is doing his damnedest to get ten years' active commissioned service, is also highly aware of the twenty-year retirement. The recalled Reserve captain with more than eight years of active commissioned service is a very hard working officer indeed. And why not? After ten years as an officer he can reenlist as a private (or whatever rating they give him), ride out ten years more, and retire with a captain's pay.

The twenty-year retirement is here to stay. The screams, when the Hook Commission made its recommendations to knock it out, are still reverberating through the House and Senate. And if it is ever revised, the men (and women) who enlisted under its provisions will in all probability be able to take advantage of it.

The pre-World War II Regular rarely thought of retirement, except vaguely, and then only in the sense that it would probably never happen to him. Thirty years was a long time, and most of the admitted thirty-year men did not actually believe they would last that long. The topic of a shortened retirement cropped up from time to time, and many were of the opinion that it might be cut to twenty-five years some day, but no one ever seriously considered that there would ever be a twenty-year retirement. The shock produced by its announcement was the turning point in the mass demobilization following V-J Day. This was the device that saved the Regular Army from near extinction. Regulars with more than seven years of service in 1945 weighed the possibilities carefully, and the majority took out another stack. First-three-graders especially; and in 1946, through 1947, it was not uncommon to find five or more mas-

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ter sergeants, ten or twelve technical sergeants and staff sergeants by the numbers, all assigned to one organization.

The other factor, besides the twenty-year retirement, that did more than anything else to keep the Regular Army enlisted man in the service, was the travelling rating. Everywhere a man goes, his rating goes along. This was a major policy change from the days when the rating belonged to the company and not to the man. It used to be a rough deal to hit every new outfit as a buck private. It established the homesteader, and it will be another generation before the last of them is dislodged.

These two factors have produced our postwar soldier and airman: a security-conscious, cautious, and reluctant warrior. A man who works like a dog for master sergeant, avoids promotion to warrant officer, and then keeps his nose clean until his twenty years are in. Then he coasts, because from that day forward it is all gravy. To be sure, not all regulars are like that, but there are enough of them for it to be a serious problem in the ranks of the noncommissioned officer corps.

What is the answer to the old soldier who is coasting? The young company commander with the old first sergeant (who has completed his twenty years and sees no reason to knock himself out) has a hard job. His innovations, long-range plans, and efforts to buck are frowned upon by the Ancient One. On the other hand, the young officer with the first sergeant who has only a mere fifteen years of service, has a relatively easy time. The first soldier *has* to cooperate, and will push his organization as hard as he can. He has to get in that twenty—then his slow-down will start.

If these facts are recognized, and they are evident facts that can be seen every day on every Army post and Air Force base, they can be licked. First, the CO should take advantage of the young noncoms by asking for and demanding a day's work for a day's pay. The coasting twenty-year man he can put in the company of an experienced captain. Experience in handling troops is the only answer to coping with the reluctant soldier. But even this isn't enough.

Every enlisted man and airman, at the end of his twenty years, should be called before a board of senior officers. His complete military record should be reviewed at this time, and he should explain and show cause why he should be retained in the service longer than twenty years. Too harsh? Not a bit. The good soldier welcomes such opportunities, and the man who has been slowing down, and marking time, will have his chance to get out. He is not needed. For every lagging senior noncommissioned officer, there is an eager man to take his place. Knowing that such a board has to be met at the completion of his twenty years, will salvage many a good soldier caught up in the customs of the times.

G/A Douglas MacArthur has a phrase that fits: "There is no security. There is just opportunity."

M/Sgt. Charles Willeford
USAF

Battlefield Psychology

Following the Normandy breakthrough, which resulted in the deployment of the Third Army into Brittany, the –th Infantry Division was given the mission of capturing the port of St. Malo. Even though the main defenses of the port were pointed toward the sea, the Germans, with customary thoroughness, had constructed a defensive zone in the form of an arc to protect the port and sea defenses against assault from the rear.

The port of St. Malo is situated at the mouth of the Rance River and the defensive area included not only the port proper, but the city of Dinard on the opposite bank of the Rance, the sea defenses, and that portion of the defensive arc protecting Dinard from the rear.

After reduction of the defenses on the St. Malo side of the Rance River, as well as the capture of the city proper, except for the so-called impregnable fortress of St. Servan which fell later, the division deployed on the west bank of the Rance to capture Dinard and complete the operation.

During the operation on the Dinard side, American artillery scored a direct hit and set fire to some ammunition carelessly left near the land entrance to one of the massive concrete emplacements on Pte. St. Lunaire. The fire quickly spread inside the emplacement and caused the defenses to be evacuated and the garrison to surrender.

Included in the "bag" of prisoners was the chief of staff of a German division which had been destroyed in the Normandy fighting. It developed that this officer had escaped from Normandy to St. Malo where he was placed in command of the Dinard sector of the port defenses.

A quick evaluation of the situation by the U. S. division commander who was present at the command post of one of the infantry regiments when the prisoners were brought in, suggested that an effort to convince the German commander that he ought to order the surrender of the remaining defenses, might save time and lives.

When he heard the proposal the German commander drew himself up haughtily and replied coldly that such action was impossible since it violated his honor as an officer and besides it was not fair to his men to order them to surrender while they could continue resistance.

Translation difficulties made negotiations slow but when the attitude of the German became clear, the division commander quickly agreed that the prisoner's honor as well as the honor of the German Army, and in particular the honor of the few remaining German forces left intact were all-important. He also saw that perhaps it had been wrong to suggest such an unorthodox action. But since the prisoner valued his personal honor so highly, it was obvious he would like very much to rejoin his comrades so valiantly holding out—even though the bitter end was obviously not far off in time. So, said the American, arrangements would be made for a jeep and a flag of truce to convey the prisoner back to rejoin his men.

When the prisoner understood this, great beads of perspiration stood out on his forehead. He spluttered and remonstrated that he, a prisoner, was being treated very unfairly. Well, the division commander replied, "honor" was a thing of primary importance and the prisoner had about ten minutes to make up his mind.

Before the jeep arrived the German had agreed that an order to surrender should replace him when the flag of truce was carried forward into the enemy's lines.

And so, this phase of the campaign ended a few hours earlier—when time was priceless—and with fewer losses than could have been expected.

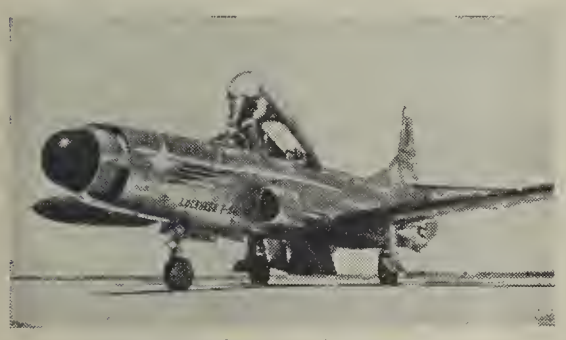
Colonel Admiration
Infantry

Index to Volume 2 Available

The July issue completed Volume 2 of Combat Forces Journal. The index for those twelve issues is on the press. If you want a copy just drop us a postcard. Better still, ask us to place your name on our permanent list of subscribers who get the index each year. There is no charge to paid-up members.

Irons in the Fire

Air Force is getting deliveries of a new all-weather jet interceptor, the Lockheed F-94C Starfire. Designed for air defense, the Starfire is armed instead with 24, 2.75-inch air-to-air rockets, housed in a ring of firing tubes around the nose. Additional rockets can be carried in armament pods affixed to the wings. The Starfire comes as



All-weather jet interceptor

close to flying itself as any plane yet. Radar and specialized "brainlike" instruments enable it to spot the enemy miles away, lock onto the target, track, close, aim and open fire—all automatically. Among the new electronic innovations in the Starfire are the new Westinghouse automatic pilot and the Sperry zero reader flight director. It is equipped with an instrument landing system which permits it to fly in storms or at night and to make low-visibility landings.

A new rifle grenade launcher for the M1 rifle was recently tested and recommended for standardization by AFF Board No. 3. This launcher is similar in appearance to the former rifle grenade launchers, the M7 and M7A1, but the tube is one and one-half inches longer. AT grenades fired from this launcher have a higher muzzle velocity, flatter trajectory, and are superior in accuracy and range to those fired from shorter launchers. Other interesting features are the incorporation of a folding integral direct fire sight which is faster and easier to use than the M15 sight, and a clip-type retainer spring which permits easier and faster loading of grenades. The rear of the launcher tube is provided with a larger mating shoulder and the gas cylinder lock of the M1 rifle is provided with a similar mating surface to receive the blow of the launcher shoulder in recoil. This device prevents damage to the M1 rifle. For these advantages, together with the fact that the M1 rifle can fire accurate semiautomatic fire with the launcher attached, there are only 2½ ounces of extra weight.

Signal Corps has made some important improvements in its RAWIN equipment used for gathering weather information. The RAWIN system includes a mobile automatic radio direction finder and a new type radiosonde (radio set carried aloft by a balloon). Previously the tracking set had to be manually operated on the spot but the new one can be handled by remote control if necessary, and for the first time the new set permits continuous automatic tracking of the balloon flight and recording of the atmospheric data. The radiosonde is about the size of a telephone and weighs approximately two pounds. In addition to its radio transmitter, it carries a hydrometer for measuring humidity, a barometer for measuring air pressure and a special one-shot battery.

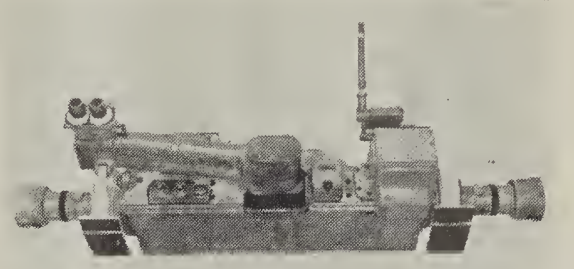
Transportation Corps' Research and Development Station at For Eustis has developed a new 26-foot plastic utility boat that outperforms its wooden counterparts. The plastic boat is 30 per cent faster than the wooden one, carries



Plastic utility boat

a much larger load and of course is much lighter resulting in a 1600-lb. reduction in displacement. Made of American Cyanamid Company's Laminiac Resin and Fiberglas, the boat is not subject to deterioration from dry rot or marine organisms. The new boat is 26 feet 6 inches long, has a beam of 8 feet 1 inch and is powered by a 68 horsepower Diesel engine at a speed of 14 knots.

Armor has a new tank-gun range finder, developed by Chrysler Corp. designed to make it possible for a tank gunner to zero in on the target and get a hit on his first shot. This advanced device which is being used on the M47 tank, permits the tank gunner to range and track the target continuously. The range finder automatically applies to the tank gun data on direction and distance to the target as well as the type of ammunition used.



Top view of T41 tank-gun range finder

To give more fire power to the 3.5-inch rocket launcher a small device called the Latch Contactor, T1, has been tested and recommended for standardization by Army Field Forces Board No. 3. It eliminates the necessity of hooking up the squib wires on 3.5-inch rockets when firing. The device fits on the rear of the launcher, replacing the latch. It features a "hot" firing detent, a ground detent, a positive stop to position rockets, a safety switch and an operating handle. The whole mechanism is covered and presented in a neat little package approximately 5 inches long, 3 inches wide and 2 inches high. Kits will be produced and field type Ordnance units will modify present launchers with little effort. The 3.2 ounces of additional weight increase the rate of fire from 8 to 18 rockets per minute. To operate, the rocket is pushed into the rear of the launcher tube as far as it will go and the operating handle is moved to the fire position. Zingo! It's ready to fire!

Acme Steel Co. is introducing into the U.S. packaged steel fabricating units especially designed for all purpose construction. Known as Dexangle, the slotted steel angles are made in ten-foot lengths of .080 galvanized steel with two legs measuring 3″ and 1½″ wide. Working on a principle similar to children's Erector sets, lengthwise slots along both legs of the angle permit quick and easy assembly with nuts and bolts. Indentations at three-inch intervals make measuring and cutting a simple operation. A hacksaw and a wrench are the only tools required for construction using Dexangle. It has been widely used throughout the British Empire for military construction, especially warehouse shelving.

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FRONT and CENTER

ARTILLERY

(Fort Sill)

FSCC Course

A Fire Support Coordination Center (FSCC) course has been included in the TAS curriculum. The one-week course is designed to familiarize senior officers with the organization of the FSCC and capabilities and limitations of ground, air, and naval supporting weapons. Fifty students attended the first class, which began 14 July.

Instruction included the employment of artillery with the infantry and armored divisions, coordination of supporting arms in amphibious and airborne operations, the importance of tactical air support and air-ground operations in the supporting role, communications systems and equipment available to the FSCC, artillery registration and survey as they affect division and corps operations, and the capabilities of infantry and artillery weapons.

Fire Direction Films

TAS has completed review of a series of training films related to fire direction procedure.

"TF 6-1696, Fire Direction Procedure, *Part I, Precision Fire,*" has been released. It deals specifically with the methods and procedures of a Fire Direction Center in the precision registration of a 105mm howitzer battalion. It contains much general information about techniques that are common to all fire direction activities.

"TF 6-1697, Fire Direction Procedure, *Part II, Area Fire,*" has been released. It demonstrates the gunnery procedures involved in conducting area fire missions.

The final part of the fire direction series, "TF 6-1703, *Part III, The Observed Firing Chart,*" has not yet been released. This film emphasizes the principles of the construction of an observed firing chart using both live action and animation.

Training Films

TAS is preparing scenarios for a series of training films on the observation and adjustment of indirect fire. The first part of the series deals with basic procedures, the second with adjustment of mortar fire by the combat soldier, and the final instalment concerns the artillery observer.

Filming was completed at TAS on two training films, "Field Artillery Radar" and "Army Aviation." The first shows the purpose, use, and development of modern radar equipment and the latter demonstrates the types and capabilities of Army aircraft.

Signal Corps teams will soon begin filming training films at TAS on artillery RSOP and Field Artillery sound ranging.

Extension Course Programs

A series of recommended extension course programs for use by unit commanders in training key officers and noncommissioned officers has been prepared by TAS. The programs include a series of subcourses suitable for study by individuals holding certain T/O&E jobs. They are designed for use by all units of infantry and armored division artilleries.

Interested organization commanders or persons desiring more information about the various programs may obtain a list of the subcourses pertinent to their type units by writing to the Director, Department of Extension Courses, The Artillery School, Fort Sill 10, Okla.

New Extension Courses

Subcourse 30-12FA *(Fire Direction Center Technique),* revised, is now available. This course teaches the procedures employed by the FDC in converting observers data to fire commands.

Subcourse 40-11 *(RSOP),* revised, has been service tested and prepared for printing. It will be available soon. It covers the principles of reconnaissance, selection, and occupation of positions.

Subcourses 40-22AAA *(AAA Automatic Weapons Battalion)* and 50-6AAA *(AAA Brigade and Group),* have undergone major revision and are now being processed for printing. They should be available by September.

Subcourse 30-4 *(Artillery Survey),* revised, is being service tested and will be available soon. It teaches the latest methods used in artillery survey at the battalion and division artillery levels.

Subcourse 30-21 *(Meteorology for Army Aviation),* revised, will be available soon. It contains a comprehensive treatment of weather as it affects operation of Army aircraft. It is recommended for all Army aviators.

Editions of the following revised subcourses are now available: 20-9FA (Firing Battery); 20-13AAA (AAA Basic Gunnery); 30-2 (Training Management); 30-15AAA (AAA Radar—Matériel and Employment); 40-20FA (Employment of Army Aviation).

Questions & Answers

The Artillery School has received many inquiries requesting informati about the extension course program. familiarize readers with the progra TAS has answered questions usua asked regarding extension courses. F ther information may be received writing to the Director, Department Extension Courses, The Artillery Scho Fort Sill 10, Okla.

Enrollment of enlisted men. E listed men are eligible to enroll in a subcourse required for their present prospective duties. For example, an e listed man in the fire direction center a field artillery battalion may enroll Subcourse 30-12FA, Fire Direction Ce ter Technique. Enlisted men who ha completed the 10 Series may enroll the 20 Series.

Enrollment of officers. Officers extended active duty or members of t Regular Army may enroll in any su course in any series.

Enrollment of graduates from se ior ROTC units. Second lieutenants w have graduated from senior ROTC un may enroll in either the 20 or the Series.

Enrollment after completion of a sociate battery officers' course, TA Since the Associate Field Artillery B tery Officers' Course parallels the instru tion received in the 20 and 30 Seri students should enroll in the 40 Seri upon completion of the basic cour The 50 Series parallels the instructi taught in the resident advanced cour If you have completed other specializ courses at the various service schools, t exemptions granted for completion these courses will be furnished upon quest.

Effect of call to active duty upo enrollment. A call to active duty do not affect enrollment in the extensi course program. It is advisable to revie your extension course program and quest that those subcourses which de with your new duties be sent to you fir

Retirement in the reserves throug army extension courses. Three hou of credit in Army Extension Courses a credited as one point toward retenti and retirement in the active reserve.

Check by the battalion comman er on the progress of members of h battalion. A battalion commander mu indorse the original enrollment applic tion which gives him the opportunity check on the subcourses in which mem bers of his battalion desire to enroll. they complete each subcourse letters completion are mailed to them throug him. This enables him to gauge the ra of progress of each individual enrolled

vell as the rating earned. Each indi-idual who completes a series receives a :ertificate of completion and an entry is nade on his Form 66 to show that he ias completed the series.

Effect of oversea orders on enroll-ment. Personnel are encouraged to take idvantage of extension courses even hough overseas or in a combat zone. Many students in Korea are enrolled in hese courses and find them very useful.

Minimum progress requirements. If the pressure of business or other activ-ty temporarily hinders you from meet-ng the minimum progress requirements, vou may apply to TAS for a waiver. If or any reason your enrollment is can-:elled, you may re-enroll by submitting i new application to TAS..

INFANTRY

(Fort Benning)

Film Village

For realism's sake a complete village is being built by TIS for the background of two new training films that went into production in July.

The first film, "Fighting in Built-Up Areas," will show the employment of the rifle squad and platoon in village fight-ng while the second part of the film sequence, "The Rifle Platoon in the At-ack of Built-Up Areas," will go on to demonstrate the tactical planning, prepa-ration, and execution of an attack by a reinforced rifle platoon in a built-up area.

Training Literature

There was some activity at TIS in the training literature field this month. Sev-eral items were distributed by The Adju-ant General or sent forward to Army Field Forces. The following are publi-cations recently distributed:

C4, FM 23-65

TC No. 19, Zeroing Small Arms and the Sniperscope by Field Expedient Methods (the July issue of the *In-fantry School Quarterly* has an ar-ticle on this)

TC No. 20, Sniper Doctrine

These were sent to Army Field Forces:

C3, FM 23-55

FM 23-80 (Complete revision of 57mm RR, M18)

C2, FM 23-85 (Extensive change making many corrections on 60mm Mortar, M19)

C3, FM 23-92 (Covers new 4.2-inch Mortar, M30)

FM 31-50, Combat in Fortified Areas and Towns

TM 57-220, Technical Training of Parachutists

Graphic Portfolios

Two more Graphic Training Aids (portfolios) have gone to Army Field Forces for approval. The titles are "Hasty Field Fortifications, Individual Protec-tion, Individual Entrenchment," and "Hasty Field Fortifications, Individual Protection, Crew-served Weapons Re-placements."

SIGNAL CORPS

Aviation Center

A Signal Corps aviation center was established at Fort Monmouth on 1 July to evolve and test aviation doctrine and procedures for the Signal Corps and to furnish aviation support to SC installa-tions at and near Fort Monmouth, in-cluding the Electronic Warfare Center and the SC Engineering Laboratories.

(In a letter on page ?? of this issue Brig. Gen. Arthur Pulsifer points out that Signal Corps aviation is booming and that the Signal Corps is now allotted nine per cent of the total aviation in the Army.)

Electronics in Combat

The fuller use of electronics by the Army in combat is under study by a group of scientists and industrialists in Korea. Included in the group are in-dustrialists and scientists from the Gen-eral Electric Company, Radio Corpora-tion of America, and the Bell Telephone Laboratories and scientists from Massa-chusetts Institute of Technology, Uni-versity of Minnesota, Cornell and other institutions.

Secretary of the Army Frank Pace said that the purpose of the mission is to see how further developments in the general field of electronics can be used to increase the effectiveness of the indi-vidual soldier.

REUNIONS

The information listed in the following paragraphs was furnished by officers of the various associations:

1st Armored Division. Hotel Wil-liam Penn, Pittsburgh, Penna. 29-31 Au-gust. For details write: Leo B. Conner, Secretary-Treasurer, 1115 17th St., N. W., Washington, D. C.

4th Infantry Division. Hotel Statler, New York. 7-9 August. For details write: Joe Summa, Pres. NY-NJ Chapter, 2179 Washington Ave., New York City 57, N. Y.

Fifth Army Association. Reunion Pilgrimage to North Africa and Italy. From New York, 12 September. For de-tails write: Reunion Committee, Fifth Army Pilgrimage, 38 East 57th St., New York, N. Y.

5th Infantry Division. Morrison Ho-tel, Chicago, Ill. 30 August-1 September. For details write: Frank F. Barth, 18014 Homewood Ave., Homewood, Ill.

10th Armored Division. Park Shera-ton Hotel, New York City. 30 August-1 September. For details write: J. Edwin Grace, 172 Larch Road, Cambridge, Mass.

11th Armored Division. Willard Ho-tel, Washington, D. C. 15-17 August. For details write: Lt. Col. Michael J. L. Greene, 11th Armored Division Assn., 1719 K St., N.W. Washington, D. C.

24th Infantry Division. Deshler-Wal-lick Hotel, Columbus, Ohio. 15-17 Au-gust. For details write: Joseph I. Peyton, 131 N. Culver St., Baltimore, Md.

32d Infantry Division. Lansing, Mich. 30 August-1 September. For de-tails write: James Schloff, General Chair-man, Hotel Roosevelt, Lansing, Mich.

34th Infantry Division. Nicollet Ho-tel, Minneapolis. 12-14 September. For details write: Mr. Elliott G. Smith, 34th Infantry Division Association, Minnea-polis Armory, Minneapolis 15, Minn.

37th Infantry Division. Deshler-Wal-lick Hotel, Columbus, Ohio. 30 August-1 September. For details write: 37th Division Headquarters, 1101 Wyandotte Bldg., Columbus 15, Ohio.

83d Infantry Division. Deshler-Wal-lick Hotel, Columbus, Ohio. 21-23 Au-gust. For details write: Walter H. Edwards, Jr., Pres. 83d Infantry Div. Assoc. 2355 Winthrop Avenue, Indian-apolis, Ind.

84th Infantry Division. Willard Hotel, Washington, D. C. 25-27 Au-gust. For details write: National Head-quarters, P.O. Box 282, Washington 4, D. C.

101st Airborne Division. Jefferson Hotel, St. Louis, Mo. 15-16 August. For details write: Leo B. Conner, Executive Secretary, 716 Dupont Circle Bldg., Washington 6, D. C.

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★ BOOK REVIEWS ★

THE SOVIET-GERMAN WAR

LA DEFAITE ALLEMANDE A L'EST. By Colonel Lederrey. Charles-Lavauzelle, Paris. 262 Pages; Maps.

In the history of the Second World War the largest and most important of all land theaters, the Russian Front, has remained to this day the greatest enigma. The Russians have avoided publishing anything on the 1941-45 campaigns that gives the outside world the slightest insight into the strategic and tactical problems of the Red Army. The Germans were long incapable of presenting their side of the story. Now, their memoirs are coming out, but we find them highly colored, conflicting among themselves, and most open to suspicion on those points on which they agree. Nothing like a balanced, overall picture of the Soviet-German war has yet appeared from their side.

Colonel Lederrey, a distinguished Swiss officer, who for a number of years has given courses in military history at the Polytechnical School in Zurich, has attempted to fill this void. Switzerland is an excellent center of information and he has made the best use of his opportunities. In nearly a decade of effort he has brought together a solid mass of basic information which is almost exhaustive and not likely to be much improved upon in the foreseeable future. He has compared all accessible German and Russian sources, including practically all events, memoirs, articles, and other material.

He has dug into all the available records of Germany's allies in that fatal venture—the Italian, Hungarian and Rumanian. The only major gap is the story of the Finnish War by the German military delegate, General Ehrfurt.

Colonel Lederrey spent weeks at the interrogation center of the Historical Division, interviewing a number of German commanders, including General Halder himself, in which he succeeded, map in hand, in nailing down a mass of novel and highly surprising statements. His material basis has but one defect: he passes all this vast preliminary effort over in a few general sentences. In any future edition it would be most highly desirable that he should give us an introductory chapter surveying his evidence and giving at least a just evaluation of the more important sources and groups of sources.

Colonel Lederrey has made excellent use of this vast material without succumbing to the temptation of spreading it out. This account is in the "classical tradition," closely organized and at times erring on the side of overconciseness. In the main he keeps his eye strictly upon the major strategic issues and the actions of army groups and armies only. From time to time, however, he likes to enliven this rather severe presentation by adorning it with episodes chosen to illustrate either the general character of the fighting—for example, the bitterness of Russian resistance even within the encircled pockets or the rigors of the winter battles before Moscow and Leningrad—or again in order to bring out characteristic Soviet tactics. The whole account is closely reasoned. Each major phase of the war begins with a survey of the over-all situation and of the strength and presumptive plans of both sides, and concludes with a critical appraisal.

The principal criticism which one can raise against this competent workmanlike effort is that Colonel Lederrey's excessive modesty has prevented him from giving his readers the full measure of his most interesting discoveries and personal conclusions. Detailed comparison of Hitler's decisions on the Russian front with those advocated by his strategic advisers has led him to conclude that on most issues Hitler's point of view was as good as the views of his soldiers. He is inclined to extend this favorable interpretation even to Hitler's diversion of the main German effort to the South in September 1941; a move which practically all German military writers have contemptuously branded as Hitler's greatest mistake. The issue certainly can be argued, though not in the manner Hitler did it.

Even more convincing are Lederrey's observations upon the agreement of most of the key generals with the final drive on Moscow in November 1941 and upon the divergences between Hitler's and the General Staff's views in the spring of 1942 with respect to the attacks on Stalingrad and the Caucasus. All these are not subordinate issues. They were the great decisions upon which the whole war on the Russian front turned and Colonel Lederrey has done more than anyone else to break up the legends gathering around them. Yet, he persists in hurrying across these key issues in small print and tucks his invaluable contributions into a single sentence here or there, so clipped that only somebody who knows the whole story can appreciate the points which he brings out. Here again, a very large expansion would be most desirable.

On the Soviet side, Colonel Lederrey has not been so well placed. There are no documents and no key figures to interrogate. The only direct information coming from the other side of the Iron Curtain is contained in the highly sensational accounts of ex-Soviet officers who have since seen the light and come over to the side of the angels. Despite the questionable character of their disclosures, some of it at least sounds reliable and Colonel Lederrey has incorporated a good deal in his narrative. He has done even better in his patient and careful analysis of Red Army organization and movements. He has brought out very clearly the method of interlocking thrusts with which they pressed the German southern front back in the beginning of the great offensive in the fall of 1943. His survey for the following stages, 1944 and 1945, is more distinguished than others by the comprehensiveness with which he has covered the whole vast effort. He brings coherence out of all of it. Finally, the detailed comparison of the methods by which the Soviet high command coordinated operations between different army groups or fronts, is highly rewarding.

The War on the Russian Front is an exceedingly complex picture in which the major actors on both sides changed with disconcerting rapidity. Armies and army groups were destroyed, regrouped, renamed. Their commanders were shifted or retired. For the student these constant changes are one of the great difficulties. One of the most useful features of Colonel Lederrey's narrative is a series of charts giving at the beginning of each new campaign the two opposing orders of armies with their commanders and most probable divisional strength. The same thoughtfulness and painstaking care have gone into the equally invaluable maps. The smaller are extremely clear and convey the structure of a campaign in a simple picture. The larger ones are at times inevitably overburdened, but still remarkably well to read.

The whole is a solid, most handy piece of work, written with a dry sense of humor. It is an important contribution to the history of the Second World War. Perhaps the highest praise one can give it is that it is fully worthy of the great subject with which it deals.—HERBERT ROSINSKI.

EXCELLENT BOOK ON SCIENCE OF THE MIND

BASIC PSYCHIATRY. By Dr. Edward A. Strecker. Random House. 473 Pages; Illustrated; Index; $3.75.

This clearly written book is probably the best book on psychiatry for the Army, Navy or Air Force reader. Dr. Strecker had extensive experience in both wars, and the last hundred pages of this book deal with problems of emotional maturity which vitally concern the Services.

In his chapter "The Silver Cord," Dr. Strecker emphasizes again the failures of many American parents, and mothers in particular, to wean their children emotionally and through encouragement, release and discipline to give them a chance to grow up into men and women able to face life on their own. Under the heading, "Design for Childhood," the author outlines the kind of bringing-up that will usually do this. He contracts here the ways of mature and immature mothers. He favors for children, among other things, a reasonable amount of competition, because much of life is competitive. He emphasizes the imitativeness of children and thinks that the following things should be accessible

Off-Duty Reading

Good Military Reading Coming

AUGUST isn't a time for feverish activity in the publishing business, so we're going to tell you what's coming up for fall. Those of you who enjoy good military reading had better take the padlocks off the family checkbook because the fall lists are loaded.

We've announced this three times before, but this time we might make it. Volume III of Kenneth Williams' great *Lincoln Finds a General* (Macmillan; $7.50), is scheduled for October after delays of more than a year while Mr. Williams revised and corrected this volume, which will deal with Grant's first year in the West.

GALLEYS of a new military history of the American Revolution—a really comprehensive work—came in the other day. We haven't read all of it yet, but the quality of the author's work is impressive, and the maps are plentiful and good. Title is *The War of the Revolution,* by Christopher Ward (Macmillan; probably $15.00). The book is scheduled for early October publication.

ALSO on the list for early fall is the most complete pictorial history of the Civil War we've ever seen. The old familiar Brady photos are there, of course, but Brady wasn't the only good picture man to cover the Civil War, and there are many excellent shots we have never seen published anywhere before. *Divided We Fought* (Macmillan; $10.00) adequately represents both North and South, and there will be both introductory text and full picture captions.

YOU'LL have about two days to dip into these books before Volume V of Douglas Southall Freeman's monumental *George Washington* (Scribner; $7.50) rolls off the presses. This volume will take Washington to the end of the Revolution and complete his actual military career. This should make a good companion piece to *The War of the Revolution,* which will carry more actual military detail of the battles.

MOVING up a few wars, W. W. Norton will publish late in September *Bill Mauldin in Korea.* Mauldin has illustrated the book himself, which will probably be worth the price of admission, $3.00. He thinks, incidentally, that Eighth Army is the finest we've ever had. From an old Fifth Army man, that's high praise.

FOR your current reading we suggest *Panzer Leader* by General Heinz Guderian (Dutton; $7.50). We've had any number of requests for this book in German, and are therefore doubly pleased to announce its publication in English. There is also an excellent introduction by B. H. Liddell Hart, who thinks very highly indeed of Guderian as a leader of armor and original thinker in armored warfare. Much good dope on the Russian campaigns. Not exactly light summer reading, but a very important book.

THERE will be many more fine books this fall, of course, but these are the important military books. We'll try to keep you posted on them as they progress, and let you know about other good non-fiction and fiction scheduled for the coming months. OCS

to imitation to all children: liberal amounts of "integrity, straightforward dealing, truthfulness, courage, compassion, reflection, judgment, decision, tolerance." There should also be, Dr. Strecker believes, "a pattern of service to the community and the nation . . . and at least some stirrings of internationalism . . . and some spiritual strivings." And the opposites of these things should be missing.

In his chapter on "The Psychiatry of War," the author brings out many points applicable to our continuing problems of war. In a psychiatric report prepared officially after World War I, he wrote, "The more satisfactory the previous personality and the sounder its integration, the better the outlook," which he feels applies equally to men entering the service today. Dr. Strecker thinks also that all men should be drafted and should be classified and should serve, according to their abilities.

He also says of "combat fatigue" cases, that the nearer the front lines they receive treatment, the better the chance of quick recovery. And that the more severe the external shock that brought on breakdown, the better in general the chance of recovery. There were more such cases in our recent wars, he thinks, because the conditions of war were worse.

There is, he says, one elemental conflict "present unconsciously in every man, soldier and officer who was in the zone of war danger." This was the "struggle between the respective behavior demands of the instinct of self-preservation" and the behavior required of a fighting man. And Dr. Strecker asks the blunt, basic question: "How much of his body should a man expose to the fire of the enemy in order to be a good soldier?" If he gives his life bravely but gives it at once, as our Japanese and Chinese enemies have often done, "he is scarcely an effective soldier, since he is lost without having inflicted any damage on the enemy. If a soldier never risks exposure to the bullets of the enemy, he is a poor soldier—dangerously disruptive of morale. Somewhere between these two extremes lies the correct compromise formula which equals the most satisfactory soldier, and in this formula will be retained considerable behavior representation derived from self-preservative drives."

Here, Dr. Strecker is not clear about how the soldier learns to decide how much he shall expose himself—how fully and how long at a time. He does not emphasize, as he might have, that training in the elements of scouting and patrolling is what enables an otherwise courageous combat soldier to make the most of his chances without doing less than a fighting man should.

Dr. Strecker also outlines some of the things he believes are important to morale, which he considers a vital part of psychiatric prevention. Good food, good living conditions when possible, neatness of uniform, interesting diversions, good medical

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care, good relationship with leaders, mass exercises and drills, good training and instruction in the control of fear—these are the principal requisites mentioned. We could well have placed emphasis also on the new systems of rotation.

Psychiatry has been heavily blamed for some of its early errors in World War II, but its important values are now generally realized and have become a permanent part of every military service. It has much to teach every leader, and *Basic Psychiatry* is an excellent, readable text to use for gaining our necessary acquaintance with this science of the mind.—G. V.

BOOKS RECEIVED

CLASSICAL MYTHS IN ENGLISH LITERATURE. By Dan L. Norton and Peters Rushton. Rinehart & Company, Inc. 440 Pages; Index; $5.50.

THEY HAD A GLORY. By Davenport Steward. Tupper and Love, Inc. 311 Pages; $3.75. Life on the border after the Revolutionary War.

FAR CORNER: A Personal View of the Pacific Northwest. By Stewart H. Holbrook. The Macmillan Company. 270 Pages; Index; $3.75.

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THE ATOM SPIES. By Oliver Pilat. G. P. Putnam's Sons. 312 Pages; Index; $3.50.

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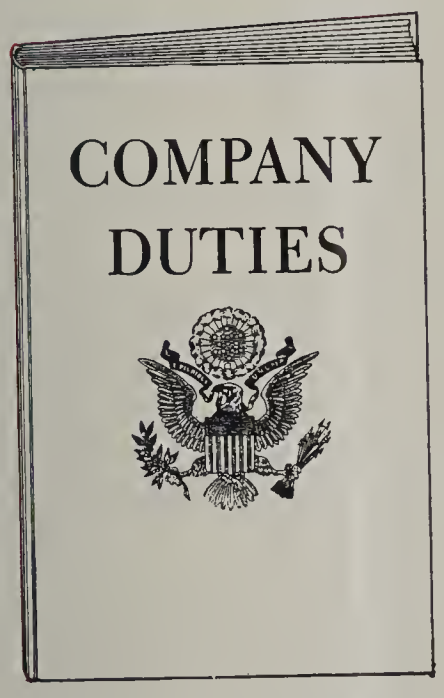
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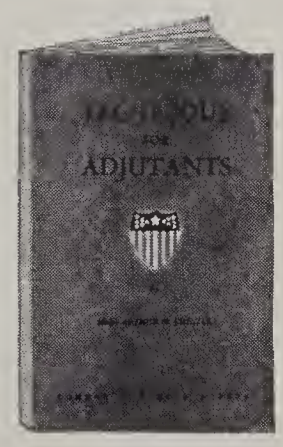
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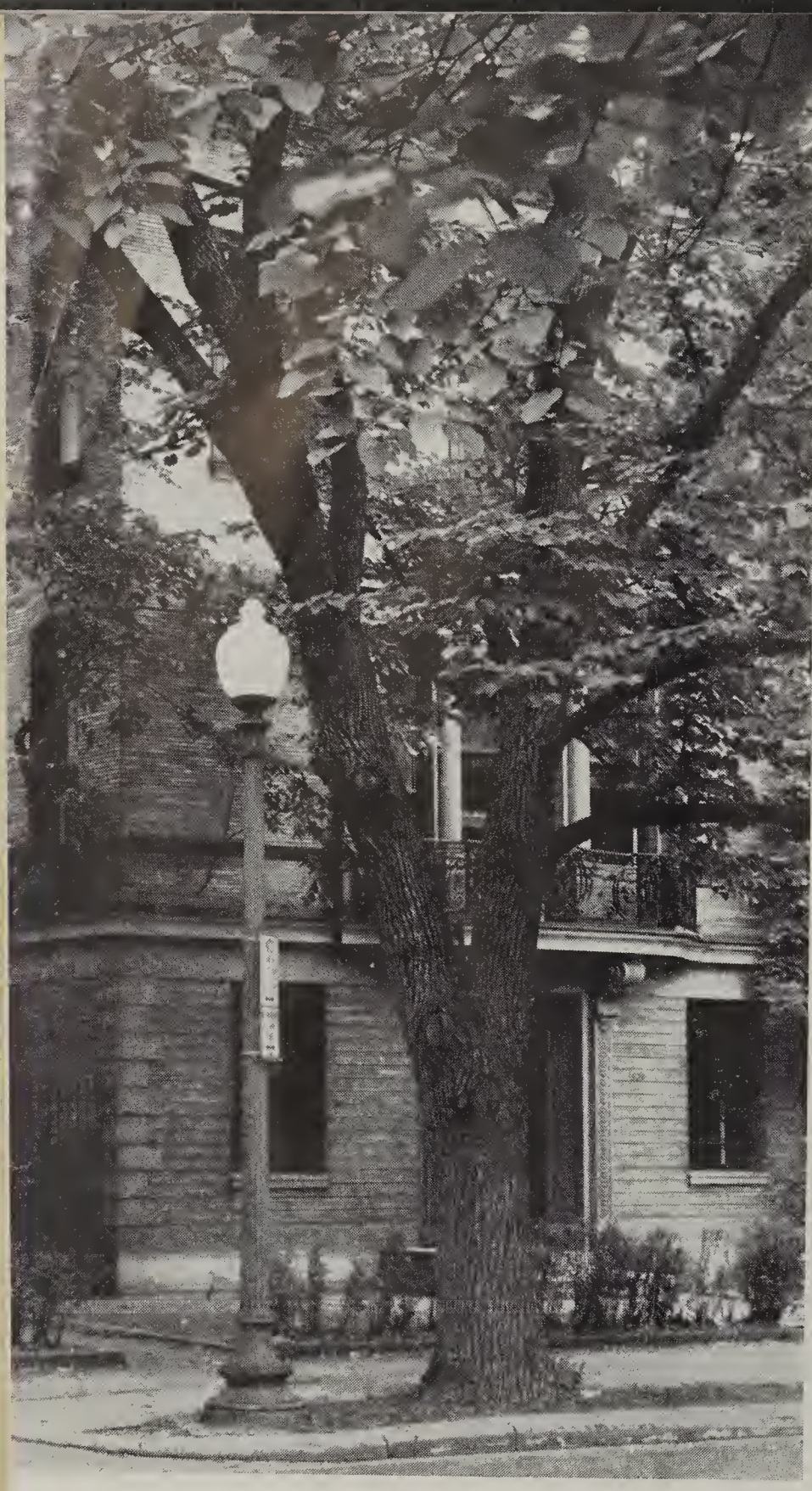
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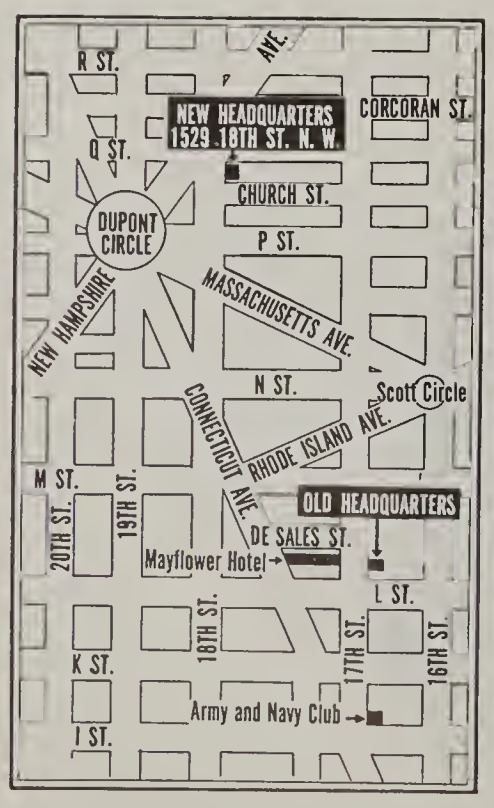
YOUR Association and JOURNAL now have a new home. Early in August, The Association of the U. S. Army and COMBAT FORCES JOURNAL moved to 1529 Eighteenth Street, Northwest, from the Infantry Building at 1115 Seventeenth Street, Northwest.

Your new headquarters is a five-story town house, which was the residence of the late Chief Justice Charles Evans Hughes during his four years as Secretary of State. The late Frank B. Kellogg also lived there when he held the same office.

The new place is slightly larger than the Infantry Building and much better adapted to the work of your Association and its staff. It is a handsome residential type of building rather than an office building, and a more appropriate headquarters for such a national institution as our Association. We hope that all members of the Association who come to Washington will visit the new headquarters. There will be parking space reserved for one or two visitors' cars at a time.

About five years ago, the Executive Council of the former Infantry Association began to realize that the Infantry Building was not as suitable as other available buildings might be for an Association headquarters. A long search followed, until finally the new place was purchased and the Infantry Building sold. In the exchange, the high real-estate market enabled the Association to sell the Infantry Building at considerable advantage.

The Infantry Building was built in 1923, after the Infantry Association had occupied rented quarters since its organization in 1904. It was added to in 1941. The erection of the Infantry Building across from the Mayflower Hotel was a matter of great pride to the Association, and many of those who were instrumental in its building will note with some regret the change to a new headquarters. But the old-timers who have seen the new place have all approved the move, and the whole search for and purchase of the new home has had the unanimous approval of your Executive Council.



THE location of the new headquarters is about five blocks from the old, in a part of town into which many other nonprofit institutions have recently been moving. As shown on the accompanying map, it is two very short blocks from Dupont Circle and readily reached by public transportation, and it is in the first-fare taxi zone from downtown. Capital Transit "L-2" busses pass its door going to and from 13th & Pennsylvania Avenue, Northwest, and upper Connecticut Avenue. The Mount Pleasant streetcar line from the downtown area and Union Station stops in the Dupont Circle underpass only a short walk from the new offices. Crosstown—"G-2"—busses move up and down P Street, Northwest, between Georgetown and the central part of the city.

Those who write us will note that the new address—1529 Eighteenth Street, Northwest—is in the same postal zone as our former address—Zone 6.

The new telephone number of the Association and JOURNAL is Columbia 8607.

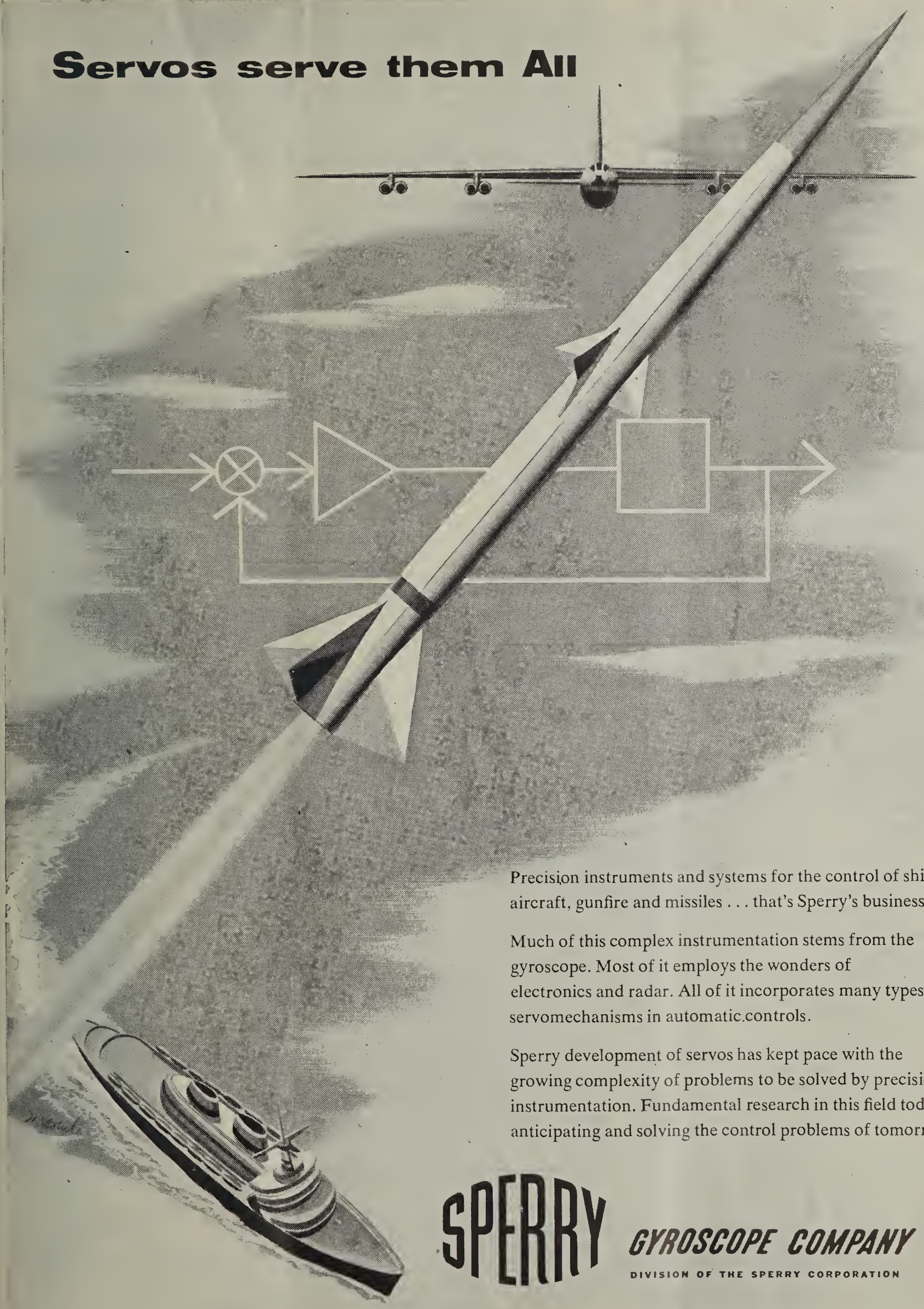
The interior of the Association's new home is particularly attractive. The most striking feature is the five-story winding staircase which is elliptical in form. There is also a passenger elevator.

The two-story brick coach house in the rear will be used for storage and handling of the Association's many publications in book and pamphlet form.

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Vol. 3, No. 2 **September, 1952**

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★ To the Editors . . . ★

"Glory through Gadgets"

To the Editors:

You might like to know that much comment has been caused by "Glory Through Gadgets" at this fountainhead. I for one must shout a loud *huzzah!* for Captain Jones. He has told us the truth, there is no compromise.

We won't act upon Jones's wisdom, and that's a pity. We'll plod along as we always have and then look hurt—as in 1945—when "our boys" want out as fast as possible and the "honorable profession of arms" gets the usual black eye.

Senior officers who could do something will agree with Jones. But they won't act. They (like so many of us) close their eyes to the unbuttoned, unpolished, long-haired, product of "Doolittleism" found in any public place today. Or worse, they will issue orders that treat the symptoms, not the cause.

MAJ. STIFFBACK

The Infantry School
Fort Benning, Ga.

To the Editors:

I should like to give Jones a resounding pat on the back for that "Glory Through Gadgets."

In my opinion, he put his finger on the root of this matter when he suggested a housecleaning of the roster of infantry officers.

I know of several cases where men were commissioned from civilian life to perform some sort of special assignment (not involving combat) and were handed muskets to wear. For them, infantry was a "carrier" branch.

There are lots of others assigned to infantry units who are misfits and should be removed from the infantry and put somewhere else.

We all know that a unit is a reflection of the officers who command it. Give us tough, fit officers who have pride in themselves and are proud to be infantrymen and you'll find the problem a lot closer to a solution.

MAJ. JAMES J. MULLEN

The Army General School
Fort Riley, Kan.

To the Editors:

"Glory Through Gadgets" by Captain F. P. Jones in the July issue was timely and amusing, if not very enlightening. Captain Jones cites a case of one "typical" soldier in his first year in the Army. It would be nice if all good soldiers could make sergeant first class in one year. Nor would we be in such dire need of parachutists if even a small number of men coming into the Army were willing to volunteer to jump, so it isn't too likely that our young lad will get into the troopers. If he isn't in the airborne he shouldn't wear the wings, parachutist's patch, French Fourragère, Distinguished Unit Citation, or jump boots.

Now we come to the Expert Infantryman Badge. I wonder just how many men assigned to the infantry have the Expert Infantryman Badge? Very few, but our boy was a good soldier and he received his. He made corporal in one year and might make sergeant a few months later if he keeps his nose clean. Now what does our boy look like with the Clark Gadgets? He has the blue piping on the cap and a blue Fourragère, Expert Infantryman Badge, combat boots, and he is a corporal. He may or may not wear the epaulets of a combat leader. Now compare him with the man in the smart-looking blue uniform of the Air Force or the average Marine, with his dozen sharpshooter medals. The few men that do all of the things cited would be outstanding soldiers and would be no more than the expected sharp airborne soldier of today. Today about the only true *esprit de dogface* in the entire Army is in the airborne. So, maybe these gadgets are needed to lift the morale of the infantry, or maybe it is something deeper.

We still don't have the interest in the infantry that is needed. Before there can ever be any real interest to get into the infantry, and enable the Army to have the crack assault troops that it so badly needs, it must be shown to the men who are in the infantry that the Army needs them; that the Army respects them; that they are doing and always have done the real job of defending America. Mr. Herbert Hoover in a political speech not too long ago quoted a Defense Department circular that said the services exist to support the infantryman; the man with the rifle, the man with the mortar. He then ridiculed that circular. His belief is that we don't actually need ground armies, for air and naval strength can protect us against our enemies. He also stated that it was not the ground armies that would protect this country against their enemies, but modern weapons.

Men who have fought in war know that super weapons don't win a war, that the best they do is soften up the enemy, that the rifleman is the one who actually defeats the enemy. If Mr. Hoover's opinion is shared by the top people in our government, then what can a fellow starting out in the Army believe? I don't blame him for not wanting to get into the infantry with that kind of recommendation.

Here is an example of how the army congratulates good infantrymen, men who volunteered to go to Korea and fight to end this terrible war. In the fall of 1950, shortly after the Korean conflict started, the call went out for parachutists with complete light-weapons infantry background to volunteer for the Rangers. Their mission was to operate behind the enemy lines in Korea and to specialize in night operations against the enemy. It was stated to each volunteer that he more than likely would be on his way to Korea within a few months and he wouldn't be

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building roads or directing traffic—and I mean no discredit upon the Engineers or the Military Police. These volunteers went through possibly the toughest physical training that has ever been given in the Army. They then went to Korea, as Rangers to fight as Rangers, and to stay Rangers. But after these Ranger companies got into action in Korea they were always greatly under strength because of insufficient replacements to fill their ranks. Regular replacements didn't want any part of the Rangers and the men in the States weren't volunteering for the Rangers for maybe it was just too tough for them, or maybe it is right back to our problem: the regular infantry and specialized infantry units just don't have anything to offer men who can get just as much glory by serving in the 999th Quartermaster Shower Detachment.

Finally they inactivated the Ranger companies, mainly because they didn't have the replacements with the training or the men with an urge to be crack infantrymen.

But the most amazing thing is what they did with these inactivated Rangers who had volunteered to come to Korea and fight as Rangers. These men didn't have quite enough time to rotate to the States, so the Army transferred them out of the combat zone to Japan as replacements to the 187th Airborne. I wonder if such a reverse replacement scheme has ever been practical? These Rangers, possibly the best trained and seasoned infantrymen in the Army, deserved a better deal than that. These men are not likely to play hero and volunteer again. The Rangers I know feel the same way: they aren't about to join the call for any more crack assault units until the Army shows them that they can at least give them a fair shake.

Let's face it: the rest of the services exist to support the infantry and when more people realize that then, and only then, will the infantry be respectable. That is the only way you will ever get any *esprit* in the infantry. During the last war there was a propaganda campaign telling us not to "run down your buddy in the Quartermaster, Military Police, Engineers, Ordnance and other noncombat type units. He keeps you moving and he feeds you. You ought to be thankful." That is all true. But if a man can be in a noncombat unit and get the same credit for battle as the man in the infantry, what incentive is there to be an infantryman? When the idea gets around that the infantry is the pinwheel and everyone else is supporting them, then men of high calibre will want to go into the infantry. It is something to be proud of now, but only the men who have been in combat with the infantry or men in specialized combat units recognize that pride and wear it as it should be worn.

SFC Ernest Reed
Milwaukee, Wisc.

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Army Aviation

To the Editors:

It is time for the Army to create its own aviation that will bomb and strafe the enemy in the front lines. Just as it has organic engineers, artillery and armor, each division should have an organic aviation battalion specifically designed to provide the infantryman with the closest type of air support.

This close-support aviation would not infringe upon the job of the Air Force. It would stick strictly to its job of supporting the infantryman, thereby freeing the tactical air force for its primary mission of gaining air superiority and isolating the battlefield. In fact, Army planes, being highly vulnerable to enemy jets, would depend on the tactical air force for protection from enemy aircraft.

Only with organic aviation can the infantryman obtain the kind of close air support he needs. This would give the Army division commander air support for his troops when and where he wanted it, without resort to the intricate request channels and joint operations center now used. His flyers, trained as part of his division and used to working with forward observers and air observers, would have the intense *esprit* of the division at heart.

The Army aviation battalion should have a plane similar to the Fletcher FD 25 "Defender," a piston-driven fighter "carrying the punch of a heavy tank at one-twentieth the cost of such a tank." This slower, cheaper aircraft is more suited for the specialized job of close air support than present Air Force types. It gives the aviator more time to identify his ground target, and it can cruise longer at low altitudes. It can operate from shorter, rougher strips closer to division headquarters. And it can deliver as much fire power as its big brothers in the Air Force.

The addition of close support aviation battalions will increase the fighting efficiency of infantry divisions. The Army already has, in its light aviation sections, trained flyers and mechanics who could form the cadre of these new battalions.

Capt. John G. Cleveland
Hq. 55 Engr C Gp
APO 46, c/o PM, NYC

Combat Pay

To the Editors:

Let me in on this brawl on combat pay. You have had dozens of plans, from insurance to out-and-out raise of pay for everyone in crossed rifles. Why not just change the T/O?

Branch T/O

	Inf.	Engr.	QM,	Arty.	Med.	Armor	MP.
Regt.	BG	Col	Maj	Col	LtCol	BG	Maj
Bn.	Col	Maj	Capt	LtCol	Maj	Col	Capt
Co.	Maj	1stLt	1stLt	Maj	Capt	Maj	1stLt
Plt.	Capt	2dLt	2dLt	Capt	1stLt	Capt	2dLt
PltSgt	Mr	Stf	Stf	Tec	Stf	Mr	Buck
SqdLdr	Tec	Buck	Cpl	Stf	Buck	Tec	Cpl

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Plt	Capt	1stLt	2dLt	2dLt
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Give all grades overseas pay with a differential depending on the zone: 10 per cent for combat zone; 5 per cent for communications zone; 2 per cent for zone of the interior.

These changes in grades will assure the rifle companies of plenty of volunteers.

I know nothing of Navy and Air Force organization. Someone else will have to decide on the changes for them, but flight pay based on a few hours per month flying time is ridiculous and should be cut off.

Lt. H. A. Smiley
Rt. No. 1, Box 368
Chico, Calif.

Two Hands in Pistol Shooting

To the Editors:

The Infantry School *Quarterly* ran a nice short article on the use of the pistol recently. It was full of dope on how to hit bull's-eyes and the like, and very much on the ball.

The only thing I can find wrong with this is that the idea of firing a pistol in the manner of formal pistol shooting, like the NRA and Olympic matches, ain't quite the ticket.

I have seen lots of people burn up ammo trying to limit their hits to the space in the target frame, and cheering wildly if they got one in the 4 ring. The Erie Ordnance Depot used to have some old shell hoist frames where the company did its yearly firing and the frames would ring continuously like gongs during rapid fire. Modern marksmanship is on the same level.

The manual has a short course of combat firing, nine whole entire rounds per course, as I recall it. The average bolo does not wear L target centers on his baggy blouse, so let's play with the silhouette target. Let's also heave the one-handed idea out the window. Let our would-be Wild Bills use both hands, rest the piece on whatever the lay of the land allows. Include a routine which requires the pistol to be drawn, fired fast, and quickly recharged and fired again, such as the 7-yard stage in the practical pistol course, used by the FBI and cops.

Very few of us who carry pistols will ever shoot in the National Matches. So let's be more practical and less stylish. Or else issue shotguns to all who bolo.

WO John P. Conlon
(Expert one time in 13 years)
37th Infantry Div.
Camp Polk, La.

À Outrance

To the Editors:

In a recent review of the interesting new work *Lincoln and His Generals,* Henry Seidel Canby says that T. Harry Williams, the author, "makes clear that the reluctance of the Northern generals to follow through seems to have been due in part to their conditioning in a democratic and, in general, humanitarian society, where soldiers were regarded not as the

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'cannon fodder' of the old wars, but as citizens like themselves."

We found such failures in both World Wars, too. There were notable exceptions, of course, though some who may seem exceptions were not. Sometimes the "drive" was due to ignorance of the enemy strength and situation, but in most of those cases the generals were not outstandingly successful.

Whether due to "conditioning," moral timidity, fear of newspaper reactions or misgivings as to the courage and stamina of their troops, our commanders seldom demand unsparing, relentless exertions from their soldiers. Obstinacy, obduracy, inflexibility, we find often. But tenacious, resolute exaction of the soldier's due obligation to fight (to die perhaps) to take his objective and keep going—is rare.

American soldiers are not cannon fodder and must not be so treated. But neither must they be thought of as the spoiled favorite of the politicians, or King Voter or Mom's Boy, or as demagogic lords of creation. Citizens always, yes. But the crisis of war converts them into men-at-arms and they must be employed in the age-old role of disciplined fighters. A fighter is supposed to fight or, to quote Williams's *Lincoln and His Generals,* "the hard fact is that soldiers exist to fight and possibly to die."

Commanders must be resolute and self-reliant in their decisions, energetic and insistent in execution and unperturbed by the fluctuations of combat. Esteem and homage to democracy, kindheartedness, amiability, sympathy on the part of commanders cannot be accepted as excuses for battle failures.

And in the overall picture, casualties will be far less when commanders refuse to permit their troops to break off their attack because of so-called "fanatical resistance," "well entrenched prepared enemy positions," "hail of automatic weapons fire," "overwhelming enemy strength" and other well-worn clichés of apology.

Too often the fanatical resisters were a handful of freezing, starving Volkssturm, and the well entrenched positions only a few foxholes scratched in the ground by dispirited coolies. The hail of automatic weapons fire was frequently two or three, or even one, burp gun. Even when the resistance was actually serious and intense, the commander who exacted the limit of his troops' physical and moral endurance usually overcame it.

Withdrawals, flights, retreats, "bug-outs," surrenders all have their own well worn vocabulary of exculpation—"encircled by the enemy," "overpowering fire," "heavy casualties," "assault by compact masses," etc.

Toleration of unnecessary withdrawals is shameful and particularly vicious in that sound, brave troops, on the right and left of such shabby, faithless recreants, themselves become involved. "A unit entrusted with the defense of a tactical locality *under no circumstances* abandons it unless authorized to do so by higher authority. Important localities must be defended to the last man." See Par. 264, FM 7-40.

Unfortunately, although the overall casualties will be less and the probability of success far greater in determined, all-out attacks or inflexible, unyielding defenses, this is not necessarily true for each individual battalion and division. Nevertheless, generals and all other commanders must not yield to their democratic conditioning. They must tolerate from troops and subordinates nothing except their absolute top performance, or as par. 507 of Field Service Regulations says, "They must push to the utmost limit of endurance of troops, vehicles and other transport."

Too lenient and tenderhearted diagnoses of failures of our Civil War generals or any others are subversive of proper standards of command. The successful battle commander is unsparing, not indulgent.

COL. ROBERT I. STACK

Unfairness in CIB Regulations

To the Editors:

It seems to me that there is a certain degree of injustice in regard to the award of the Combat Infantryman Badge under present regulations. These regulations state in substance that to receive a CIB an officer must either be an infantry officer assigned to a unit engaged with the enemy, or if he is not an infantry officer, that he must be in command of an infantry unit engaged with the enemy.

The result of the regulation is that officers of branches other than infantry who serve with infantry units may not be awarded the CIB unless they actually command an infantry unit. That means that noninfantry battalion and regimental staff officers are not eligible to receive the CIB while infantry staff officers holding comparable positions are eligible.

In my opinion, this situation is not consistent with the spirit of the CIB. . . .

CAPT. STEPHEN K. PLUME, JR.
Hq IX Corps
APO 264, c/o PM
San Francisco, Calif.

Air Force Reply to Col. Standish

To the Editors:

This is the first time I have ever thought it necessary to write to any publication. Colonel Standish can lay claim to my breaking the ice.

I have diligently read the JOURNAL for more years than I have subscribed to it and have thought it to be one of the best means to further an honorable profession. As an Air Force officer with no prior ground force background I have studied the JOURNAL because it has given me much information as well as a realization of Field Forces problems which the Air Force is directly concerned with.

Unfortunately I have observed the JOURNAL degenerate, in part at least, from a basic professional manual, instructive, powerfully useful, and thought-provoking, to a quasi-bitch sheet where brothers-in-arms take out their vengeance on things they do not like. This is what I mean:

Colonel Standish gives forth with a fine article on what he believes to be the answer to "perfectly coordinated air strikes." He probably has a point that should at least be given some serious thought. But if this was his subject where exactly do such slurring remarks as these fit in?

"For when the Air Force is arranging for the defense of their own precious hides, they insist that everybody engaged in that defense, including the ground artillerymen be under single command—Air Force single command" and "Is it because the flyers were never inoculated to the same degree of risk that is routine on the ground and to the ground commander? This would be an outstanding irony, for the flyers are the ones who are drawing the 'hazardous' duty pay."

I fail to see where Colonel Standish would ever win over a hostile reader by the use of such tactless language, in addition to remarks that really have no bearing on the subject.

I don't wish to argue the subject of single command for air strikes, but I want to say that there is one slight question in my mind when the Colonel says "The characteristics that need be built into a close-in ground support plane, should give us the smallest, cheapest plane of non-critical materials . . . " What does he mean by "non-critical materials"? Is this weapon of Col. Standish's to be made of plastic or clay? It is my information there are very few materials today that are non-critical.

In closing I wish to say that if Colonel Standish would stick a little more to the problem and less to his personal feelings about the Air Force many of us might think a little more of him.

I recommend a little less complaining in the COMBAT FORCES JOURNAL and more downright useful leadership assists.

CAPT. WALTER ECHWALD
Hq Sq 1605 Air Base Group
APO 406, c/o PM
New York, N. Y.

Sunglasses and Honor Guard

To the Editors:

A few weeks ago I was in Washington, D. C. and I visited the grave of the Unknown Soldier. I was amazed and surprised to find the honor guard wearing sunglasses while on the very important detail. I say important leaving all sentiment out, because the post is undoubtedly one of the nation's shrines and a must for foreign VIP. I can't imagine the guard of Buckingham Palace wearing sunglasses at the famous changing of the guard. If a two-hour tour without sunglasses is too much of an ordeal for the nation's number one honor guard, I suggest that the 82d Airborne Division furnish the honor guard, I'm sure they could walk their post without sunglasses.

LT. HAROLD A. LANGERMAN
APO 613, c/o PM
San Francisco, Calif.



BIRTH OF A BIRD

In the case of guided missiles, the "Birth of a Bird" is not something which happens in a few spring weeks. Creation of a new guided missile is a long and intricate project, one calling for a team of engineers, like that at Fairchild's Guided Missiles Division, which is skilled in many phases of engineering—one which knows how to weld electronics, aerodynamics, rocketry and a host of other specialties into missile systems that tomorrow will be front line defenders of freedom. With experience dating back into World War II, Fairchild's team of missile engineers today is designing and developing not only guided missiles but also complete missile systems including ground and support components.

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Comment for the Combat Forces

Forgotten Wars

WHEN the pangs of conscience gnaw at our busy, prosperous, election-year-happy citizens they speak of Korea as the "forgotten war." Some of the men included in that label feel even stronger about it and speak of it in stronger terms.

But whether it is balm for the citizen's guilty conscience or for the soldier's understood resentment, "forgotten wars" are an old story to the U. S. Army. The men at Valley Forge were "forgotten" and very often so were the generations of men between 1776 and 1890 who fought the Indians on the ever-advancing frontier. The soldiers in the Philippines in the early years of this century were "forgotten" in the same sense, and so were the soldiers who went into Siberia and Manchuria at the end of the First World War. There were many "forgotten" fronts in the Second World War.

To fight, suffer, and risk death in a "forgotten war" takes more iron determination, fortitude and self-reliance than fighting as a member of a great crusade with avowed and well-publicized ends in view. But on the record the lasting benefits of what has been won in "forgotten wars" of the past compares very favorably with what has been achieved from the wars that were not forgotten while they lasted.

The men who have fought and who fight in Korea today can take wry pride that theirs is sometimes called a "forgotten war." That term has been a proud name since way back when.

Operation 78

EVERYTIME we read that General Van Fleet has again warned that the Reds have used the period of truce talks to build up their strength we fret about it and wonder what all the implications can be.

One thing we do infer from the warnings—and we think fairly—is that Operation Strangle, the much publicized air interdiction campaign launched a year ago, hasn't lived up to its glowing promises.

You will recall that Operation Strangle began with considerable fanfare. Ground commanders were limited to the number of air support missions they could demand of the Air Force so that more planes could be devoted to the interdiction program. Red supply lines were to be attacked relentlessly and the Red forces in Korea bled of supplies and reinforcements.

One observer returned from Korea to enthusiastically recount how our planes became airborne every fifteen minutes, night and day, patrolling railroads, roads and trails in the Red's communications zone. In two weeks last September, he reported, our aircraft sighted 40,000 motor vehicles in North Korea and destroyed 7,000 of them. This, he exulted, was a "war of attrition, waged from a third dimension."

We haven't heard anything from Operation Strangle in months. But we do hear General Van Fleet very clearly when he warns that the Reds are stronger than before and getting stronger. And stronger, we note, not just in riflemen who can swarm through Korean hills and valleys undetected from the air, but stronger in artillery; big artillery that takes ammunition that can't be hand-carried from the Yalu.

Can we surmise that Operation Strangle has been quietly strangled? It seems possible for now we are told that Operation 78 (that's our own off-the-cuff name for it) is coming up. Operation 78 is the list of seventy-eight Korean cities which are to be obliterated by our bombers after the inhabitants have been given sufficient warning of our intent.

That should win the war . . .

1529 18th Street, Northwest

IF you are one of those readers who turn to the heart of the magazine when you open it, you may have missed the announcement on the inside front cover that your Association of the U. S. Army and the COMBAT FORCES JOURNAL are now in new quarters at 1529 Eighteenth Street, Northwest. For the details about the new headquarters turn back to the inside front cover.

Soldier's Load

ABOUT two years and a half ago we gave a large part of one issue of the JOURNAL to an extensive combat study of the soldier's load. This article received much applause. It added a good deal of steam to the work already going on toward improving the soldier's load.

Next month we are going to report on what Army Field Forces Board No. 3, at The Infantry Center at Benning, has accomplished—and it is a lot. We especially commend the Board's thorough analysis of the problem, which shows a far-ranging imagination—the freedom and extension of thought which must be allowed whenever a military problem is tackled—no matter how simple and basic that problem seems at first glance. It is written by Major Richard T. Mathews.

One side of the soldier's load problem, emphasized in Major Mathews's article, but stated pretty much as a question, concerns whether light materials can be made available for the lighter equipment needed.

We say the Army *must have* those lighter materials—that the great mistakes of World War II, in giving the Air Force top priority on every type of such

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SOLDIERS



These are the names of four soldiers awarded the Medal of Honor for acts of heroism above and beyond the call of duty in Korea. These bring to fifty-three the number of soldiers awarded the Medal of Honor in the Korean conflict.

CORPORAL RONALD E. ROSSER
Heavy Mortar Company, 38th Infantry

PRIVATE FIRST CLASS DAVID M. SMITH
Company E. 9th Infantry
(Posthumous)

SERGEANT FIRST CLASS TONY K. BURRIS
Company L, 38th Infantry
(Posthumous)

SERGEANT LEROY A. MENDONCA
Company B, 7th Infantry
(Posthumous)

★ ★ ★ ★ ★ ★ ★ ★

material, must not be repeated.

If there is any general priority set up, then the Army combat soldier should be No. 1 on the list.

He has to *carry* the stuff. He doesn't have several thousand horsepower to tote it for him. He lugs it himself and often he lugs it all day.

We congratulate AFF Board No. 3 on its first-rate work on this important problem. And the JOURNAL likes to take a little credit for itself, because of the many times we have pointed to the soldier's load as a vital, battlefield problem.

Friend to the Army

THEY wanted to make me a colonel in this second war. But I said 'No; I want to be able to talk to the generals the same way I would to the corporals.' " In this spirit Dr. Walter Van Dyke Bingham, who died in July, returned as World War II began, to the military work he had entered upon in the days of the First World War.

In that war, he was Executive Secretary of the Committee on Classification of Personnel in the Army in the first year, and did, in 1918, accept a commission as lieutenant colonel in the Personnel Branch of the Army General Staff. In World War II, he was Chief Psychologist in the office of The Adjutant General, and Chairman of the National Research Council's Committee on the Classification of Military Personnel. He continued in the postwar years as consultant to the Army Department on similar matters. Between wars, despite a busy and honored academic career, the further problems of military personnel classification remained for him a principal interest. In his later years the nearly parallel questions to be found in industry also occupied much of his thought and energy.

More than any other man, Walter Bingham contributed to the solution of the never-ending problems of keeping the square military pegs out of the round holes and putting them into the square ones where they belonged. He planned, conducted and supervised the most extensive research into these problems.

Even during the months of illness that closed his life, Dr. Bingham kept turning his able mind to the great personnel problems that are still unsolved —in particular the need to find ways of selecting true fighting men for fighting work. He read with deep interest the recent articles of Colonel Standish, and began at once to consider what lines of research might be followed, what batteries of psychological tests might be arrived at, to detect in advance of battle the men who would fight the best when the hours of combat came.

Now the work must go on without him. But go on it undoubtedly will, for his impress was not that of a lone worker. Men of the staffs he trained will carry it on, remembering always the devoted scientific attention their old chief gave to one of his country's most demanding puzzles—how to use each soldier best, in war and peace.

Waste

PORTIONS of the fortieth report of the Johnson Preparedness Subcommittee which digs into the services' uses of manpower have been criticised in the press. Mr. Hanson Baldwin of *The New York Times,* for example, wrote of the report's occasional indulgence in "generalizations and oversimplifications," of "inaccuracies or extreme statements, sometimes on the basis of superficial examination."

We indulge in no such criticism. But we do say that if we were detailed to look for instances of wasteful uses of manpower in the Army we would not spend any time studying the printed tables of organization of the infantry battalion.

We wouldn't, for example, list 203 jobs in the battalion as "support jobs" where, presumably, some savings could be made.

Before we would note that there are 103 men in the battalion performing communications jobs, some of which might be abolished or consolidated, we would ask experienced battalion and company commanders and platoon leaders if they always had all the communications they needed in combat. We would ask if communications forward, backward and laterally saves lives and wins battles. We would ask if the forty-nine messengers listed in the table of organization ever fire their weapons at the enemy, carry ammunition, or perform duties other than carrying messages.

Before we would note that there are twenty administrative jobs in the battalion we would ask experienced infantry officers if the sergeant major and five first sergeants did nothing but perform "support" jobs.

We would also ask the same question about the forty-three men assigned to the operation and maintenance of motor vehicles in the battalion.

We would have to have a lot of good sound information from the field before we would criticise a table of organization. And unless we had that kind of information we would never say that "We cannot consider a battalion to be at a high peak of efficiency when more than one-fourth of its personnel find combating the enemy a secondary task." Indeed we would never say that.

Nor would we ever say—or would an experienced soldier with sound judgment ever say—"We cannot consider a division efficiently organized when a potential enemy division can outgun it by ten per cent on a man-for-man basis."

No experienced soldier would maintain that two unlike (in numbers, equipment, methods of training and indoctrination) infantry divisions can be compared on the basis of their respective tables of organization and equipment. No experienced soldier would ever say that the division with the most riflemen and howitzers and the fewest radios, motor trucks, shower units, postal detachments and chaplains would defeat the division that had fewer riflemen and howitzers and more radios, motor trucks, shower units, postal detachments and chaplains.

However, an experienced soldier confronted with the fact that an army of thirteen divisions had fought an army of eighty-two divisions to a standstill would unhesitatingly say that the army of thirteen divisions used its fire power to greater advantage, whether it had more or fewer rifles and howitzers and tanks per division.

The experienced soldier might say that the thirteen-division army was superior partly because it had 103 communications men in every rifle battalion.

He also might say that the superiority was partly because the smaller army had more trucks and helicopters.

He might say that it was because the men of the smaller army were better trained and its commanders were better tacticians and strategists. He might say that it was because the army's leaders (with the support of the civil authority and the citizens) saw to it that the men got warm clothes, good food, religious services of their choice, letters from home, good doctors and nurses, and a feeling that they were individuals and not faceless cattle to be driven to slaughter.

An experienced soldier of sound judgment might conclude that the smaller army licked the bigger one because it was wasteful of everything except its heritage that machines are made to serve men and not men machines, and that the lives of soldiers are precious and the most valuable commodity the army and the nation have.

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WITH LIVE POP-UP TARGETS

Thirty-soldiers did what they were trained to do, so taking the hill was just like a

School Problem in Surprise and Marching Fire

Lieutenant David R. Hughes

THIS is not the story of a hill heroically taken, nor of a new tactical maneuver. It is the story of an everyday attack by a rifle platoon in which every man did what he was supposed to do. That makes it a success story. But because it is simply a story of simple tactics properly executed, I think it is unique. I was the platoon commander.

The platoon was the 2d of Company K, 7th Cavalry Regiment. The place was near Chunchon, Korea. The time was 8 April 1951, just after the second crossing of the 38th parallel.

The story would be incomplete without a picture of the platoon's noncoms.

Irvine, my platoon sergeant, was a reliable infantryman, 32 years old. The squad leaders were a study in contrast. Pfc. Ridner was a 35-year-old veteran of Burma and Merrill's Marauders. He was new to the unit, had never been in a Korean fire fight, but with his experience commanded well a squad of young raw replacements. Sgt. Thomas, only 18, full of guts and experience in this war. Sgt. Rose, 22 years old, was a newly minted squad leader whose pre-Korean assignment was as a clerk. Sgt. Stitler, ex-battleship fire control man, really ramrodded the heavily loaded ammo bearers of his weapons squad.

The platoon was not a solidly veteran platoon. Of the thirty men available on that day (we were chronically under-strength) seven had never been near a fire fight, only eight were "basic" infantrymen. Their average age was 21. From top to bottom it was a typical platoon.

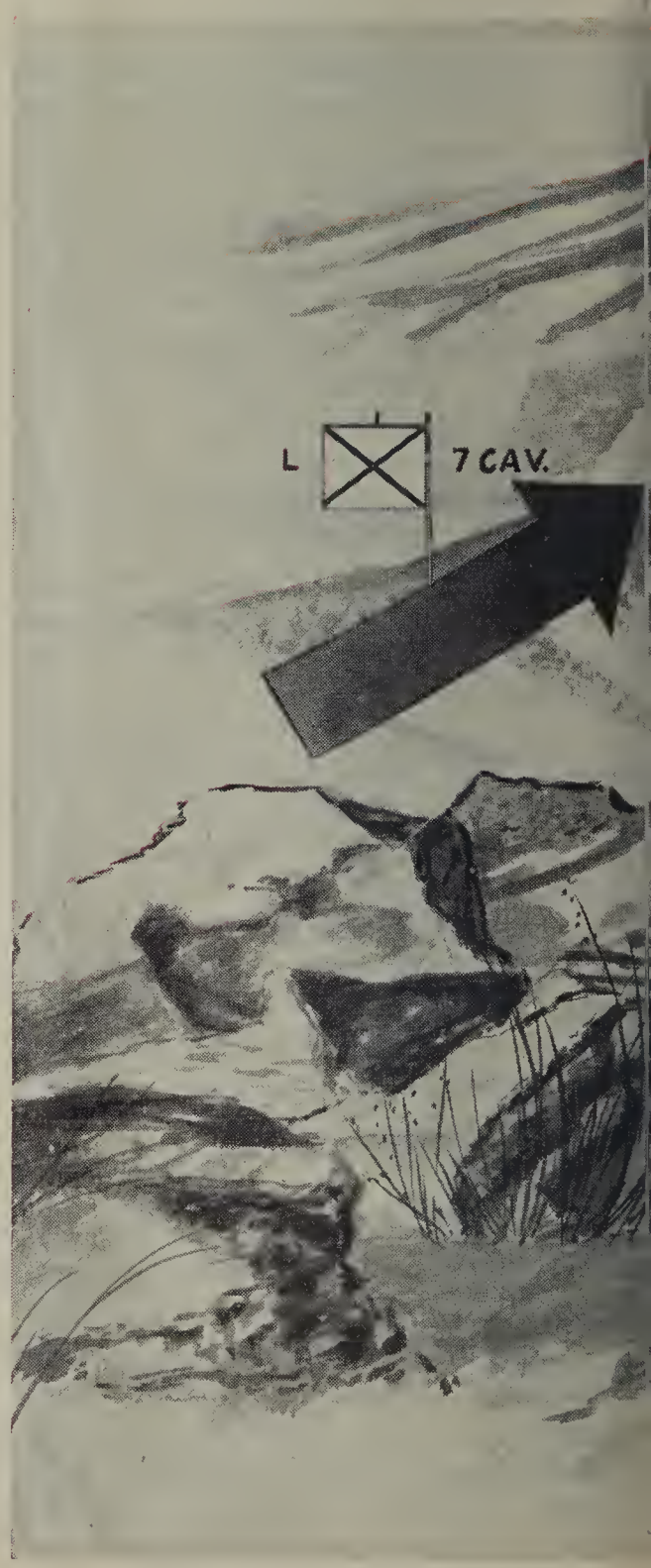
The regiment had been attacking in the mountain sector, north of Chunchon. The 3d Battalion had a narrow sector but was up against an entrenched enemy on a mountain range of sharp ridges, often impassable due to jutting rock formations. Company K had "ridge run" for two days in an advance of 7,000 yards including two stiff fire fights on 700-meter mountains.

The came Hill 878.

There were two south approaches to the hill, both up rock ridges. Picture three peaks in a line, joined by ridges 200 meters lower than the peak. We were perimetered on the close one. The center, 860, was a pinnacle. The third, 878, was connected to 860 by a 300-yard bare ridge. The only other approach was from the valley on the west, over exposed heavily defended terrain. If the rock pinnacle of 860 could be cracked, 878 would be easy. But 860 was tough. It had five or six AW positions, impregnable among the rocks, and unapproachable by more than one man at a time.

Companies I and L hammered at the two approaches for two days without success. Artillery, ineffective against the Rock, had more effect on 878.

The battalion on the right continued to advance and by 7 April, its left flank



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was becoming dangerously exposed to the enemy on 878 and north of it.

SO a plan developed. After an early-morning air strike, artillery, and mortar preparation, Company L would assault 860 to gain a jump-off point against 878. At the same time a fast, light rifle platoon would take a roundabout route and end up directly north of 878, behind the enemy. It would move up as close as possible and at the moment Company L put the main effort across the 300-yard ridge at the face of the hill, the platoon would drive in from the rear, overrunning the rear slope positions, and the enemy who tried to escape to the north.

My platoon was chosen for the encircling movement. I had my choice of routes to my jump-off point. I chose a north valley going out, an overland path due west and a wooded finger that stuck north from 878. The plan was sound but if it misfired my platoon would be cut off with at least two enemy companies, dug in on the peak, able to hit it with everything they had.

The morning of the 8th dawned cold and windy. The ridge we were on was socked in by thick mountain fog and my first thought was that we would lose the air strike.

I dropped our extra platoon equipment, drew two assault rations and checked my thirty shivering men. Two bandoleers and a full belt for M1s, four boxes of caliber .30 machine gun ammunition, four rounds of 3.5-inch bazooka, full loads for the BARs and full clips for the carbines. Two grenades for everybody, with extra white phosphorus, and a yellow marking smoke for me. I didn't ask for a 57mm recoilless or other attachments because we had to move fast, and even the relatively light 57 would slow us down. I had cut the machine gun and bazooka load in order to keep fresh bearers all the way up the tortuous 2,500-foot mountain. My platoon runner carried the air panel, radio operator his SCR 300 with extra-long antenna and the attached medic carried his bag of supplies. Because we were under strength, I carried a sniper's rifle to have more firepower and to have a bayonet if it became necessary.

WE moved out at 0700, rushing by battalion, without even a chance for me to orient my squad leaders. But I would find a chance for that. After moving through the last squad outpost, I led the platoon down one of the fingers leading to the valley, and stopped five minutes later. Since we were going to be in enemy territory for the next twelve hours, I wanted to tell every man the mission, situation, and what I intended and expected. I had them lock and load, put two clips on their bandoleer strap, straighten the cotter pins on their grenades and loosen their clothing. Most of our march would be single file, so I put them initially in 1, 2, 3, 4, squad order, myself at the head with runner and radioman. The platoon sergeant brought up the rear.

Then I took ten minutes to tell them that we had a Ranger-type mission, and to succeed we would have to move quickly and quietly, and be alert for ambushes from our flanks. Squad leaders would look to the front, second man right, third man left, two yards between men and no loud talking. I oriented them as to terrain and where to go in case they became separated. I emphasized marching fire in the attack and the weakness of the Chinese grenade. The seven new men looked uneasy. I told them that surprise was in our favor, if we kept fire discipline.

Then we filed down through the mist to the quiet valley. By 0815 we had left the fog and I could see an air panel about 3,000 yards northeast on a low hill. That was a leading element of the 1st Battalion. The sound of sporadic fire came from that direction. At the first break, I oriented the squad leaders on our map, now that we could see the ground, gave them the grid code and re-emphasized alertness and speed.

By the time we reached the valley, 3,000 yards north of 878, the fog was gone and AT-6s and L-5s searched the area. We moved smoothly through wooded areas, calling back our position every thirty minutes.

We saw nothing hostile until 0925, when my platoon sergeant passed up the word that figures were moving along the high ground to our far front. I scanned the hill and picked up Chinese in their characteristic flop hats. But they did not appear to have seen us.

At 0935, we ran into a two-platoon patrol from Company B. It was heading for a nearby objective. I had not been told about it so its leader and I made a little operations coordination which consumed thirty minutes of calling back to our companies and getting missions straightened out. Due to the great amount of traffic on our assigned radio channel, one company radio and mine, dropped five channels. No one cut in on us all day.

As we moved out, mortar fire began falling close by. After a quick look at the terrain, I decided to try a little subterfuge and so began following Company B in file along the path which led west and slightly north toward their objective. When we crossed a deep draw directly north of my objective and in slight defilade from it, I turned sharp left and under the cover of foliage and terrain, moved 1,000 yards south to the foot of 878. The mortar fire continued to follow Company B. It looked like the Chinese had lost us in the draw.

AT 1015 we reached the base of the 600-yard finger that ran to the top of 878. We had come across a number of camouflaged supply and food dugouts along the stream beds, but observed no very recent activity or anything that hinted of defensive positions on the slope. After a short break, while I reported my position, studied my approach route, and gave the company time to radio instructions, we started up the ridge. I still led the single-file column so I could more carefully observe the untrodden path in front of me. Almost every ridge line, hilltop and valley in Korea has some kind of trail along the natural terrain, and by closely observing these paths, the amount of traffic could often be determined. The nose of land in front of us was heavily wooded but all the underbrush had been burnt away by either Napalm or artillery and the path was covered by a coat of ash. Feeling like a Boy Scout working for a merit badge, I got down and examined the trail. No fresh marks. I decided that the path was not used by the enemy and that we could expect to find their ridge line outposts closer to the top. That information helped me estimate better when to stop and deploy for an assault. I did not want to move in single file until the point contacted the enemy. Previous skirmishes had proved that it took the enemy just a wee bit less time to move into defensive positions after we alerted their outposts than it did for us to deploy for a running assault. If I could outguess their positions, I would increase our chances of catching them off balance. Every advantage had to be in our favor because we were a tiny force on a big mountain.

Halfway up the ridge I sent a three-man point twenty yards ahead and had the last man watch me for "stop," "go" and "down" hand signals. I put the 3d Squad in front and placed my 3.5 team in their midst. It could be used, as I had often used it before, as an anti-dugout or anti-personnel weapon. I required the gunner to assemble his weapon and had him carry one round with him. If we should be pinned down,

he still could fire almost immediately. Then I brought up the 2d Squad, followed by the weapons squad (now consisting of the machine gun and ammunition). Last in the file was the untried 1st Squad, followed by my platoon sergeant and the medic.

All this took about three minutes, but it might save ten minutes of maneuvering under fire. We had moved out when I received an order from the company to hold up "about 200 meters" from my objective. I decided that that meant the artillery was getting ready and maybe even air might get in before the attack. It was 1120. An AT-6 began buzzing the mountain. Air must be close by. I moved another 100 yards and then dispersed the platoon, off the path, told them to eat, keep quiet and out of sight. I put the yellow panel out but off the ridge where it could only be seen from high above. Then I reported in by radio. No orders were issued to me but at 1145 four F-80s streaked over 878, and Napalm, rockets, and caliber .50 slugs smothered the slope. They came from the south flying directly at us and the fire hit only 300 yards from us. One rocket whooshed over us, but fell far down behind. We watched a few Chinks dash around on the ridge trying to get in their holes, and around the burning Napalm. That was the first time I had ever seen enemy moving around under close air support. It strengthened my conviction that the hill was crawling with Chinese.

Now the artillery came in at high angle. Then a short pounding with 4-2-inch mortars. We caught the overs, but didn't get hurt. But it was worth even a few casualties to keep their heads down and demoralize them with heavy stuff. It also would lull the enemy into thinking no one could be very close to them.

AT 1213 the artillery and mortar let up. I could not directly observe the effect but I knew the air strike and artillery bombardment could only be capitalized by a quick attack. I hoped that the main effort was under way.

I did not know then that Company L could not even approach their first objective.

At 1228 the company commander called with a terse "Move Out."

The word was passed back, men saddled up and waited. I motioned the point to move and we started on the last leg.

We had progressed about seventy-five yards up the slope when the point man froze. I looked past him through my binoculars. Not twenty yards ahead in the thick trees, were two enemy soldiers sitting and chatting on the edge of a small dugout. They had not seen us. I raised my sniper rifle and shattered the quiet with two shots. One Chinese dropped and the other took off without delay, but the point man hit him before he could run a dozen steps.

The point squad ran forward firing from the hip at every sign of cover or concealment. I ran the 2d Squad up on the right. There was scarcely a need for orders. The training in principles and the briefing was paying off. In a moment we had moved fifty yards up the slope covering every point of the terrain with fire.

The machine gunner had dashed forward and set up with only a gesture as an order. Soon his chattering weapon was flushing the surprised Chinese out of their holes. Thirty more yards and we reached a T ridge where the squads reached a full skirmish deployment and brought maximum fire to the front. The din was terrific and only the snap of the closest enemy bullets could be heard. Every man was firing, watching the smash of the bullets on the limestone rock. It assisted the adjustment of the fire. The enemy ran helter-skelter in front of us, throwing grenades and firing spasmodically but we cut them down with the *volume* of our fire. Many were hit even after they had pulled the pins of their potato mashers. Five minutes after our assault began, I heard the loud crump of mortar behind us on the ridge; there wasn't thirty yards between the end rear of the platoon and the front and those searching mortar hits followed us all the way to the top without ever getting up to the tail of the column. The 1st Squad leader, Ridner, kept yelling a terrifying battle cry as he ran. Sergeant Thomas munched a candy bar between the shots of his measured fire. Sergeant Rose kept up a screaming flurry of Japanese and Chinese and directed his BAR with his right hand. They could not pin us down. An enemy weapon on the ridge began chewing up the ground between the men. Our machine gun took it under fire while two men ran at it from the right and two from the left. The machine gunner put a steady stream of slugs into the position until the men were a scant five yards away. The Chinese gunner never had a chance. That was close support.

Between commands, I reminded them (at the top of my lungs) of only two things: no casualties yet, and we must get to the top before they organize.

We had run 300 yards up the steep slope in a very short time and now had reached the backbone ridge and a solid network of defenses. But the attack lagged to a walk as the exhausted men spread out to cover the hill mass. I called back and passed the last squad through to take up the marching fire.

WE charged the highest ground. How we ran up that last slope, I'll never know, but we did, all the way all at once. Even the bazooka man got in on the assault. He ran forward, tube on his left shoulder and a spitting .45 in his right hand. In fifteen minutes, we had wrested the top of the hill from the mass of defenders.

The men quickly dropped into the holes in a rough perimeter and shot down the Chinks that swarmed on the mountain from every direction including the one from which we had come. Dead enemy and equipment were everywhere. The ammo bearers rushed up to resupply our weapons.

I closed off the perimeter as the squads reorganized, redistributed ammo and counted heads. Everyone was present, a few bullet bruises but no one hit hard. I radioed in our situation.

Heavy small-arms fire began coming in from all points. We had pushed back the sea but it was coming back in again. I jumped up to fire at a soldier running down the slope when a blast knocked me down. White phosphorus! And a big one at that. Acrid smoke covered the platoon. Two figures jumped out of a dugout close by and started running. The medic emptied his carbine into them and they hit heavily. Wham! Another round of white phosphorus splattered over a half dozen men. They rolled in the dirt to flick the particles off.

A burp gun cut off the tree over the machine gunner emplaced on the forward slope.

THINGS were getting tight. Surprise had worn off and we were a stationary target now.

I peered through the smoke for signs of the friendly main effort; Sergeant Irvine called back over his shoulder, "Here they come." It was a counterattack. Figures ran up the slope on three sides. Everyone waited and then opened up at killing range. The thirty-odd enemy kept coming. The 1st Squad BAR man was shot dead as he went back for ammo. He was our first casualty. The medic pulled him out as an ammo bearer covered them. I called for the bazooka. Welch, the gunner, jumped up and ran to the edge of the perimeter, aimed at four men grouped together and fired. They all went down. He reloaded

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and fired again at the sound of an automatic weapon. It stopped. The attack faltered and broke. Welch got down again, trembling but unscathed. His breast pocket was shot away.

Now ammo was low. Another WP sprayed the platoon. Where was Company L?

The radioman, medic, and I sat back to back in the center of the oblong perimeter, to defend against Chinese who kept jumping up out of the platoon circle from deep interconnected dugouts. None got away.

I called back to the Company. I was told that the terrain had stopped the main attack after a hundred yard advance toward the rock. They could not even support by fire. I pleaded over the air for more ammo, more men, more information.

HOW long could we stay without help? Two hours at most. We were outnumbered ten to one. Two clips was the average ammo load left. I was instructed to wait. The air was silent. Then another counterattack came up at us, twice as strong. We threw everything the enemy had left behind back at them. Their own grenades, a Bren gun fired by the assistant gunner, their rifles, plus more rounds from the bazooka. We drove them back.

The machine gunner with a hundred rounds left borrowed a rifle to snipe at individual hostiles. The ejection was clogged and he kept forgetting to pull back the bolt. Somebody yelled a nervous jest at him. He answered, "Well, I'm scared, damn it." We all felt like the little man who waited for the big one to get up off the floor. A few more attacks and we would have to resort to a dangerous type of defense. We were in deep holes, fairly protected, while the enemy was in the open. We could call our own artillery down on ourselves.

I reached for the radio but just as I was ready to transmit, a message came through to withdraw immediately. No help could reach us before night. I was told to call back when we had cleared the top so artillery could be put on it. I rogered. The wounded man said he could walk. I looked for a way out. Only one; a ten-foot drop off the north edge, a vertical slope of a hundred yards, then a deep draw to the right of the ridge we had come up.

The order of withdrawal would be 1, 2, 3, 4—bazooka and the machine gun going last. Everyone rolled their remaining grenades over by the machine gun position. We were ready in a minute. Then someone yelled. I looked down the hill through the smoke. Here they came again, thick as only Chinese can be. Only 200 yards away. They were wearing steel helmets. They were not remnants of the first two counterattacks, but a fresh unit.

I had two choices. Stay and stop this attack to buy time but risk casualties, or get out now while we could go unburdened with wounded. Taking the body of the dead man was out of the question now. If we didn't get far enough away before the enemy regained the top, we would be fired on, in the back, in enfilade.

I gambled. The 1st Squad took off, unobserved, leaping and sliding down the slope. The wounded man, though shot clean through, jumped too. The 2d and 3d Squads and ammo bearers went. Four of us remained by the machine gun and threw the grenades at the crowding enemy. The gun went through all its ammo; two last bazooka rounds were fired, a dozen grenades thrown. The attackers slowed up. There were gaps in the advancing line.

I looked back. Everyone was gone. I yelled and the gunner grabbed the weapon and tripod and sailed over the bank followed by the 3.5 man and radio. As soon as the snub of the machine gun disappeared from the ridge, the Chinks rushed. I grabbed the only thing left, my yellow smoke signal grenade and let it fly above their heads. Then I emptied my rifle at the nearest one. The grenade went off about four feet above the ground and bounded into their midst. The lack of explosion so surprised them that the center jumped for cover awaiting a detonation. I turned and dove off the edge of the cliff.

The slope was a sled, muddy from winter snow, and I skidded the hundred yards in seconds, slamming unceremoniously into the last man as we reached the draw. All was well. We moved fast, but within a minute a call came in from the OP. The Chinks were on top already, firing down at us. I knew that well enough. Bullets whipped over us and a few grenades burst far up behind on the slope. I called for artillery. One more minute and we were out of line of sight, comparatively safe. The artillery began pounding the hill behind us and the firing on us ceased.

THE wounded man was still going but losing blood fast. I decided to make a straight line for Red Battalion where they could evacuate him. We covered the 2,500 yards and relaxed for the first time since morning. Everyone was tired but well satisfied. My men knew they had done a good job.

After a rest we set out again for our own company perimeter 3,000 yards away. By 2000 hours we were back and the platoon moved into the center of the perimeter for a night of rest. I reported to the company commander and the day's work was over.

The enemy pulled off the hill during the night for a 4,000-yard withdrawal and we walked up 878 unopposed the next day. One Chinese who had deserted in the night was picked up.

Intelligence finally computed the results. We had attacked a battalion 500 strong. In the PW's own unit (a 50-man mortar platoon) we had inflicted twenty casualties. We counted thirty-five enemy dead, and knowing how the enemy unfailingly removed their casualties from the battlefield, we knew the number of casualties they had experienced must have been great. Either extreme urgency or the necessity of removing their wounded caused them to leave the bodies behind.

We had one killed and one wounded.

WHY did we succeed? Morale, resistance and situation were normal. The action was extraordinary only in the demands placed upon a small combat unit. I think it was the functioning of principles. Two simple but decisive principles: Surprise and marching fire. The surprise reduced the enemy's power to get set. The marching fire kept him off balance all the way. The cohesion of the platoon kept the attack strong at the decisive point. The luck involved was the fortune that favors thoroughness.

That we could not hold the hill *indefinitely,* was not the fault of the thirty men who took it. Had we fired less in the attack, the enemy would certainly have been able to inflict more casualties. As it was, the twenty-three riflemen fired an unprecedented (for a running assault) 4,000 rounds of ball ammunition in twenty minutes. The BARs and machine gun put out another 3,000 slugs. This weighed heavily in the success. Every man fired his weapon.

We had taken the hill against terrific odds. Not by heroism, because the most amazing revelation was, that after the engagement, no one could find the basis for a single decoration; thirty men had done what soldiers are taught to do.

The payoff came the next day when a former Fort Benning private came up to me and said with a sort of awe, "Gee, Lieutenant, that was nothing but a school problem with the best pop-up targets I ever saw!" He was right.



A Filipino of the PEF shows where a grenade fragment hit the nylon armor vest he was wearing on patrol.



Three mortar fragments were removed from this vest after the soldier wearing it came back from a night patrol.



Statistics suggest that proper body armor can become as essential to the soldier as the steel helmet.

Medical Corps studies of "how and by what" soldiers are wounded and killed points to

THE NEED FOR BODY ARMOR

Lieutenant Colonel Robert H. Holmes

PROGRESS in combat medicine and surgery has been so rapid that the mortality rate among casualties wounded in action has reached the impressive incidence of 23 per 1000 in Korea as compared with 45 per 1000 in World War II. Although gratifying and laudable, this progress in medical care must soon reach a point of optimum and ultimate efficiency. In order to reduce the mortality rate further, attention must be given to the possibilities of wound protection, reduction in wound severity, and means of faster battlefield salvage. The helicopter undoubtedly has already done much to accelerate evacuation of casualties and this has contributed significantly to the present reduced mortality rate.

The remaining possibility for further reduction lies in the use of body armor for combat personnel. Much progress has already been made in its design, production, and use in Korea under combat conditions. Although it is too early for final evaluations of its effectiveness, the Marines have recently standardized body armor as an official item of equipment, and both Army and Marines have extensive trials in progress in Korea and in experimental laboratories.

The study of the causes of battlefield casualties—the kind and severity of wounds caused by different types of missiles and the proportionate frequency that parts of the body are hit—leads inescapably to the belief that effective

An infantry sergeant who wore body armor on a patrol is interviewed by a member of a BOAR team. Questions are designed to obtain combat men's reactions and to obtain suggestions as to how the armor may be improved.



LIEUTENANT COLONEL ROBERT H. HOLMES, Medical Corps, is a pathologist in the Armed Forces Institute of Pathology. He has been a member of several Medical Corps research teams in Korea and is presently there on another mission. This article is based on a paper Colonel Holmes read at the annual convention of the American Medical Association in Chicago on 9 June 1952.

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A member of a Body Armor Research (Operation BOAR) describes the nylon armor vest to a 3d Infantry Division unit which men of the unit will use on patrols.

body armor will save lives, just as the introduction of the steel helmet saved lives.

BATTLEFIELD casualty rates rise and fall in direct relation to the type of combat tactics. In all previous wars, generalizations concerning casualty prediction have been treacherous. Korea is no exception. In a war of maneuver, "yo-yo combat" as it were, fierce fights occur primarily for controlling landscape. Both sides have suffered staggering losses from massive withdrawals and also assaults; yet both have carried on similar actions with minimal losses. Patrolling is slow and ceaseless, and so is its casualty incidence.

It is tantalizing to note the amazing consistencies among the many vagaries of warfare. For instance, there has been an average of 350 casualties per week during the winter months with about 75 of them killed in action. This indicates a ratio of one killed to four-plus wounded. Presumably this represents a fairly accurate medical estimate of stabilized mountain warfare employing primarily aggressive patrolling and limited offensive combat tactics. Strangely enough, however, this ratio is close to that for all casualties sustained in the Korean conflict under all tactical circumstances. Furthermore, this ratio of one killed to four-plus wounded represents the mortality-morbidity ratio of World War II. It is similarly of cogent interest that the anatomic regional frequency of wounding has been approximately of the same order throughout the Civil War, World Wars I and II, and now the Korean affair.

One of the first facts to emphasize in a consideration of the circumstances of wounding is that the infantry comprises only 20 percent of total army strength, yet it suffers about 70 percent of the total casualties. The medical problem of battlefield recovery and evacuation, therefore, must begin with an understanding of "how, when, and by what" these soldiers are wounded.

Combat tactics in Korea, in spite of the stigma of stalemate, have had a challenging versatility. Such a gamut of action may be considered under the following titles: patrolling, perimeter defense, assault, limited offensive, holding action or defense, withdrawal and envelopment. Each type combat implies variable wounding circumstances, variable weapon frequency and, therefore, variable wound type and wound distribution.

The Wounding Agent

A KNOWLEDGE of the type of combat engaged in at the time of wounding will give a strong clue as to what possibilities among the various weapons must be considered. Contrary to what too many believe, without supporting data, most casualties have a fairly good idea of what hit them. Aside from head in-

An infantry corporal shows a BOAR man where a mortar fragment hit his armor vest during a patrol. Some men think the vest is uncomfortable, stiff and hot to wear. But they want to wear it for the protection it gives them.



ONE MAN IS KILLED FOR EVERY FOUR WOUNDED



juries with disorientation, or casualties *in extremis*, less than ten percent fail to state rather positively and rationally the identity of the wounding weapon.

In the broadest sense, combat weapons are divided into two categories, namely, small arms and artillery. It is essential not only for detailed wound analysis, but also for the simple and basic factor of accuracy in the medical history to know just which of these weapon categories supplied the wounding missile. Identification of this agent immediately implies considerable data relative to enemy action and also much insight into the actual nature of the wound. There are some features of wounds produced by small arms as contrasted to shell fragments which are distinctive.

The list of weapons causing most wounds is not too formidable. At the onset of the present conflict in Korea, the North Korean Army was completely equipped by the Soviet Union. Since it is probable that such will continue to be the case, primary attention should be paid to these weapons, which are, in general, of a very reliable nature. They seem crude in workmanship, but this does not appreciably impair their functioning and accuracy.

Small Arms: Such weapons include the pistol, submachine gun, or so-called "burp gun," the rifle, light and heavy machine guns, and occasionally obsolete antitank rifles.

Artillery: Until recently little heavy artillery was furnished to Korean troops by the Soviet. The artillery had been of light and medium caliber with much dependence on mortar fire. The principal mortars employed are the 82mm, and the 120mm. The latter has been used with significant wounding effect. Antitank guns of 45mm and 76.2mm caliber are used as well as field guns of 76.2mm and 122mm caliber. The enemy is now reported to have large quantities of heavy artillery but no signifiant wounding effect has yet occurred.

Grenades: These follow the standard models of fragmentation and concussion type similar to those used by U. N. troops. They are used in abundance, and, though reported to be less powerful than ours, are capable wounding agents.

Relative Morbidity and Mortality of Wounding Agents: It has been shown in all conflicts since the Civil War that shell fragments cause the greatest number of wounds and small arms cause the greatest number of deaths.

The relative morbidity of small arms to shell fragmentation is about 1:4.

The relative mortality of small arms to shell fragmentation is about 2:1.

Thus far in the Korean war, mortars, particularly the 120mm, and grenades have accounted for the majority of wounds caused by shell fragments. The light machine gun and the automatic rifle, or "burp gun," have accounted for the majority of killed in action due to small arms.

It is worthy of emphasis that small-arms fire in the present survey accounted for about 65 percent of the killed in action and shell fragments the remaining 35 percent. Among the wounded in action there is a sharp reversal in incidence of the wounding agent, and shell fragments account for about 75 percent of the casualties, and small-arms fire the remaining 25 percent. Naturally these figures will vary somewhat with the type combat tactics, but are quite applicable to continued aggressive land warfare. In combat where patrolling action predominates, casualty incidence due to small-arms fire tends to rise, but even this is partially balanced by an increase in casualties from land mines. The latest casualty survey in Korea conducted by Maj. William F. Enos, Lt. George Coe, and Lt. Col. W. W. Cox, U. S. Army Medical Corps, indicates a much higher incidence of killed in action due to shell fragments, and a higher percentage of wounds involving the thorax.

Classification of Wounds

THERE are four classifications of war wounds. Here is a brief description of each:

Non-penetrating wounds. This type of wound is usually caused by blast. It includes contusions and concussion—any type of injury which does not break the skin.

Penetrating wounds. These are wounds made by a missile which penetrates the skin but does not pass through the body and come out the other side.

Perforating wounds. These are wounds made by a missile which penetrates the skin, passes through and comes out the other side. There are three types of perforating wounds:

(1) small wound of entrance and small wound of exit. These "tunnel" wounds are usually caused by high-velocity small-arms fire;

(2) small wound of entrance and large wound of exit. These are most often caused by high-ve-

WEAPONS THAT KILL AND WOUND U. S. SOLDIERS

	Percent killed in action[1]	*Percent wounded in action*
 Small-arms fire	65	25
 Shell fragments from artillery and mortar fire, grenades and land mines	35	75

[1]Recent reparts indicate that the figures in this column are naw 50% in each categary—due ta increased Cammunist artillery fire.

HOW SOLDIERS ARE HURT IN KOREA



PATROLLING BY U. S. TROOPS

The land mine is dreaded by patrols. Its blast effect and metallic fragments cause feet and legs to be blown off. The blast or concussion of a mine is usually severe. Lower nephron nephrosis (a serious injury to the kidneys) is frequent. The mortality rate for extremity wounds is significant. Enemy ambush is another hazard. The weapons are usually hidden light machine guns or automatic rifles. The killed-in-action rate may be high in such a situation. Occasionally a patrol may enter an area "zeroed in" by enemy mortars or artillery. In such circumstances there are usually many men wounded, but the mortality rate is low.

ATTACK BY U. N. TROOPS

Mortar and artillery fire falls on attackers as they approach the forward slope of the objective. Machine-gun fire opens up as the crest of objective is reached. Automatic rifle fire and grenades are next. On the objective "burp" gun fire and grenades cause the most casualties. The "safe area" at the bottom of the objective—"safe" from enemy small arms fire—is not always safe. For it is in this area that attackers sometimes suffer casualties from "shorts" of their own mortar and artillery support.





DEFENSE BY U. N. TROOPS

Enemy mortar and artillery fire is placed on defensive machine-gun positions causing casualties among the crews. Enemy infiltrates our positions, using cover and concealment. He then opens up with "burp" gun fire at 50 to 100 yards and throws grenades into our emplacements and fortified positions. Sometimes his advance is covered by machine-gun fire that seeks out our advanced defenses. At times enemy countermortar fire on our supporting mortars has caused heavy casualties among mortar crews.

locity but small shell fragments or small-arms fire at close range;

(3) large wound of entrance and large wound of exit. These are most often caused by large shell fragments or richocheting small-arms fire.

Mutilating wounds. These are wounds that cause a marked disfiguring of the body or cause an actual loss of part of the body, usually an arm or leg.

SURVEYS of wounded men show there is a wound incidence per casualty of 1.7 percent. The number of wounds, particularly to the thorax and abdomen, is closely related to the mortality rate, that is, the rate almost doubles if more than one wound occurs. In view of the fact that 75 percent or more of all wounds are caused by shell fragments, it is remarkable that the wound incidence per casualty is not higher; however, this figure tends to substantiate the observation obtained through casualty interview, that the mean distance from the shell explosion is from 26 to 32 feet. If the distance were less, wound incidence would undoubtedly be much higher.

The relative incidence of penetrating and perforating wounds among casualties wounded in action is 4 penetrating wounds to 1 perforating wound. This is an adjusted figure, corrected to provide for the fact that extremity wounds comprise about two-thirds of all wounds in action. The ratios of penetrating to perforating wounds in different parts of the body are:

Head—penetrating 15, perforating 1
Thorax—penetrating 8, perforating 1
Abdomen—penetrating 4, perforating 1
Extremities—penetrating 3, perforating 1

These figures are mean values for all types of infantry combat and will vary with any specific engagement. It should not be concluded that all perforating wounds are worse than penetrating wounds. While it is logical to presume that most perforating wounds are caused by missiles of higher velocity than cause most penetrating wounds, greater damage does not always result from perforating wounds. Sometimes relatively slight damage is caused by a "through and through" wound of the thorax in contrast to the severe destruction of some penetrating wounds of the abdomen.

Body Armor

THE need for some form of body armor to be worn by field troops is simple and urgent. The hospital mortality rate for wounded in action casualties has reached the amazingly low figure of 2 percent, a 50 percent reduction from the mortality rate of World War II. This fact is a tribute to the excellence and progress of medical science, but it also clearly indicates that any further significant reduction in total mortality rate among combat wounded must come from that group dying before hospital admission. As previously shown for World War II and the early phase of aggressive warfare in Korea, the battlefield mortality has been 20 to 25 percent of all those wounded in action. In the past year of truce negotiations and limited combat activity in Korea this figure has fallen to about 15 percent. It is from this group, therefore, that the greatest reduction in total mortality must be made.

Reduction of the killed in action rate is the most urgent problem confronting field medicine. The possibilities for accomplishing this are few. They are as follows:

(1) Prevention of wounds.
(2) Reduction in number and severity of wounds.
(3) Faster battlefield recovery of those wounded.

Much progress has already been made in the techniques of battlefield recovery by means of helicopter evacuation; and this has undoubtedly played a part in

the reduction of hospital mortality. It is apparent that the remaining possibility for reduction in killed in action lies in the exploitation of body armor, or wound prevention.

The concept of body armor in warfare is ageless. Even in the Civil War there is valid authentication of the use of metal body armor to protect the thorax and abdomen, and adequate records to substantiate its effectiveness. Some experimentation with various metals and designs was sponsored by the Germans and Allies in World War I, and toward the last of World War II a fairly large number of thoraco-abdominal vests were made by the U. S. Forces but never satisfactorily tried upon the field of battle.

One branch of the armed forces, the Air Force, has already had considerable experience with body armor and standardized its use among aircraft personnel in World War II. An official estimate shows a probable 55 percent effectiveness in casualty reduction. Weight of the protective item is, of course, not as significant a factor among airborne personnel as among field forces.

In modern warfare top priority has been given to speed in maneuver, and a vigorous campaign has been waged to reduce the weight of impediments carried by the infantryman. At the same time, there has been a tremendous increase in fire power from modern weapons, or, in other words, greatly augmented density of wounding agents. Since most casualties result from shell fragments, that is, random fire to a degree, rather than aimed fire, the chance factor for wounding bears a direct relationship to the density of missiles.

Wound ballistics studies, experimental and field research under combat conditions directed by the Surgeon General, Department of the Army, have established the anatomic regional frequency and distribution of wounds, the relative incidence of wounding agents, the circumstances of wounding, and a classification of the type wounds produced. It is upon such studies that the feasibility of body armor has been proposed.

The helmet has been long accepted as essential to the battle dress, yet wounds to the thorax account for almost as many killed in action as do wounds to the head. Wounds to the thorax and abdomen combined are known to account for about one-third of the killed in action, and the most recent survey indicates an even higher percentage. Among the total wounded in action, the thorax and abdomen combined account for about 15 percent, and of those dying of wounds after reaching a hospital, about 30 percent.

It has been previously shown that under current battle conditions shell fragments cause about 75 percent of all wounds and about 35 percent of all killed in action. Later studies indicate that the second figure may be as much as 50 percent. That 75 percent of all wounds are of a penetrating type with the missile lodging within the tissues implies a velocity ordinarily less than that of a missile producing a perforating wound. The average distance from the shell explosion to the casualties caused by fragments has been determined to be from 8 to 10 meters and the wound incidence per casualty of 1.7 percent suggests that this distance is reasonably accurate. If the distance were less, wound incidence would appreciably increase.

FROM these observations the need for body armor is apparent. The problem of providing such protection requires a coordinated effort by many branches of the military service, because the design of the body armor must be a compromise between the ideal in protection and the practical in use. The maneuverability and effectiveness of the combat man must be preserved.

In June 1951, a joint Army-Navy mission was dispatched to Korea to conduct the first controlled field trial of body armor under combat conditions. The body armor, a thoraco-abdominal vest weighing about six pounds and with protective qualities superior to those of the helmet in current use, was to be worn by combat medical personnel and also other members of all the Arms and Services.

The field trial lasted for about two months and troops of the 2d Infantry Division and the 1st Marine Division were carefully indoctrinated in the use and value of the thoraco-abdominal vest. Upon conclusion of the trial, it was reported that the vest was desirable, acceptable, and could be worn without undue encumbrance or hindrance to job performance. The psychological effect was also favorable. Based upon these findings, more extensive trials have been initiated and are continuing. The design has undergone modification, but the same materials, compressed Fiberglas and Nylon, are being utilized. Results of the present trials by the Marines and the Army are restricted data, but it can be said that thus far indications are encouraging.

WHERE SOLDIERS ARE HIT

(Regional Incidence of Wounds)







KILLED IN ACTION

Head	27%
Neck	4
Chest	25
Abdomen	10
Upper extremity	4
Lower extremity	5
Multiple	25
	100%

WOUNDED IN ACTION

Head	16%
Chest	8
Abdomen	6
Upper extremity	26
Lower extremity	44
	100%

DIED OF WOUNDS[1]

Head	28%
Chest	6
Abdomen	15
Thoraco-Abdominal	10
Extremities	15
Vertebra & Cord	6
Multiple	20
	100%

[1] More explicit description of the location of wounds can be given in this category because doctors are able to perform autopsies.

WHAT KIND OF A LEADER ARE YOU?

Three Regimental Commanders in Korea

Major W. C. Bryan

COLONEL ABLE, an iron-handed disciplinarian, is disliked but respected by his men. The regiment is aggressive in battle, proud of its tough fights.

COLONEL BAKER, an arbitrary and sarcastic officer, is considered unfair by both officers and men. The regiment is experienced and dependable in battle.

COLONEL CHARLIE, a quiet, firm, confident officer, creates a feeling of teamwork. The regiment, proud of having never been "clobbered," is cautious in battle.

WHAT kind of leader makes the best regimental commander? Does the leadership taught in our Army schools bring the best results in combat? What type of leader are you?

Here are three regimental commanders, each distinctly different. These impressions were gathered from actual observation of the commanders and their regiments during duty with each regiment. I have disguised them enough so as not to disclose the identity of either the commanders or their units.

COLONEL ABLE

COLONEL ABLE is in his early forties. He has attended most Army schools. He had not commanded a regiment in combat before Korea. He runs his regiment with an iron hand, demanding the utmost effort from his officers and men. His troops are never idle—command inspections, regimental parades, and constant hard training, whenever the combat situation allows. His attack orders call for fast and decisive movements. He requires constant improvement of defense positions.

Colonel Able's policies are clear-cut. Punishment for violations is severe; the penalty for unauthorized discharge of a firearm is a $50 fine. He considers as his best battalion commander an officer who is noted for being hard, and he cites as proof, that battalion's bitter fight during the Communist attacks in the spring of 1951.

Customs of respect for the commander are rigidly enforced. At meals the staff is due at a scheduled time. They may not be served until the Colonel arrives, except when he is over ten minutes late, and when he enters, the staff rises and does not resume eating until the Colonel is served. The staff remains at the table until the Colonel finishes and leaves, unless some urgent matter arises. The Colonel dominates the conversation, but the talk is normally friendly. Sometimes he ribs the staff in a friendly way.

Colonel Able has selected his most forceful officer to be his S1. His S2 and S3 are both junior to the S1 and S4 and they carry less responsibility. Instructions to his staff are forcefully given and no doubt is left but that strict compliance is required.

Little happens in this regiment of which the Colonel is unaware. His influence is apparent in every activity. But he asks no more from his men than he does from himself. He sets the example.

Recently he complained strongly when he was awarded a decoration by the division commander. He had not earned the award, he thought, and getting it under such circumstances would make it harder to disapprove recommended decorations in his own unit that he might consider unwarranted.

He sometimes takes issue with the division commander, but normally carries out instructions from above without comment. His constant aim is to build and maintain a tough fighting regiment, second to none.

COLONEL ABLE'S regiment has been through as hard fighting and sustained as many casualties as any regiment in Korea. It has been "clobbered"; had as much as fifty percent casualties in a week, been filled up with replacements, and fought well two weeks later. It recovers from a tough battle very quickly.

The men in the regiment have a strong dislike for their commander, but due to the battles they have been through, they have a very definite respect also. They have a nickname for the regiment. "Deathtrap" conveys the same impression. The men believe their regiment is a hard-fighting outfit, but they do not like the constant training which they consider unnecessary. They feel that the regimental commander would sacrifice both himself and the regiment if necessary to accomplish the mission. Men from this regiment who have been casualties and are returning to duty want to come back to it. But they are more than normally glad to leave it to return to the States.

Officers and men alike are not afraid of a tough fight. They even look forward with anticipation to the next battle. They enjoy punishing the enemy and do so every chance they get. They enjoy discussing the battles they have been through and the casualties, both their own and those of the enemy. For example, the fact that a company lost all but eighteen men in one engagement is something the regiment is proud of. The men are proud of all the tough operations they have been through.

COLONEL BAKER

COLONEL BAKER is in his early fifties. He commanded a regiment in combat during World War II. He

MAJOR W. C. BRYAN, Infantry, made two short tours of duty in Korea as a member of Department of the Army research teams. He is now with MAAG in Belgium.

also had a regiment in the postwar years and he has commanded his present regiment during hard fighting in Korea.

Colonel Baker makes the decisions in his regiment. He often commands companies, and even platoons. He makes decisions without assistance from his staff, and when he makes one it stands. He issues orders when he has reached his decision, normally giving the units the minimum time for execution. He rarely uses warning orders.

Colonel Baker intensely dislikes all special-type units. He particularly dislikes special units attached to his regiment. Rangers, airborne units, and technical training parties are a complication—and not sufficiently helpful to warrant their existence. He wants units assigned to him to use as he sees fit.

He frequently finds fault with much that takes place in the combat area and in higher headquarters. But rarely does he admit any fault within his regiment. He encourages competition and assigns difficult tasks as a way to improve his unit. He deliberately makes tasks more difficult. He plays one battalion against another. He uses sarcasm and ridicule to sting his subordinates into greater effort. He finds fault frequently and praises rarely. He allows no suggestion of criticism of himself or his unit as a whole.

Colonel Baker has selected his most forceful officer as his S3. His staff rarely offers opposition to his decisions. The regimental staff is frequently restricted to the CP area and permission must be obtained from Colonel Baker to leave that area. He shows little confidence in his staff. For example, he personally keeps the list of officers eligible for rotation and personally decides who from that list is to be rotated and who is not. He applies regulations only in line with his own views. If they are not restrictive enough, and he usually thinks they aren't, he applies his own additional restrictions.

When an officer makes a mistake, Colonel Baker keeps a tight rein and a critical tongue on him for several weeks. Once his wrath has been aroused it continues until the officer, by diligent work, proves that the mistake was an exception and not the rule.

He puts considerable emphasis on the appearance of his unit. Three sentries are stationed at the entrance to his CP where one would be able to handle the traffic. A special distinguishing item of clothing is worn by the officers and men of the regiment. He places little emphasis on sanitation, and none at all on team sports, considering them relatively unimportant to the men or the well-being of the regiment.

Colonel Baker is sincerely proud of his regiment and considers it the best in Korea. He personally talks with every group of replacements joining the regiment. He gives them the history of the unit and some tips on how to get along in the outfit and in combat.

He is thoroughly familiar with every type of combat. He knows the weapons and capabilities of infantry as well as any man in Korea. He is at his best, both in humor and in confidence, when the tactical situation looks darkest.

IN Colonel Baker's regiment there are constant crises. Someone or some unit always seems to be in trouble. The officers feel that they are expected to do unreasonable amounts of work. They spend much time trying to keep in the good graces of Colonel Baker, or attempting to stay away from him, if they are in disgrace.

Both officers and men of this regiment feel that they are not getting a square deal. So little information reaches the ranks that rumors are frequent and unreasonable. They feel that no matter how well they do their jobs no credit will be forthcoming. They normally do their work to please the regimental commander rather than to improve the unit. The most frequent question among both officers and men is: "When do I get rotated?" Few men feel pride in the unit and most would like to transfer from the regiment. Most officers would like to see the regimental commander transferred. They feel that he has worked so hard that he is unable, even when it is possible, to take it easy or let them take it easy. The officers feel that he favors one battalion by giving the other two the least desirable missions.

The regiment has been through some tough fighting in Korea and while not eager to come to grips with the enemy, has been dependable in battle.

COLONEL CHARLIE

COLONEL CHARLIE is in his late forties. He commanded a regiment in combat during World War II and for several months in Korea.

Colonel Charlie gives orders quietly but firmly. He rarely raises his voice but there is no doubt but that his instructions must be carried out. He leaves most decisions to his staff and battalion commanders. He intercedes only when the plan is wrong or when he must make the decision. He believes that his officers and men should be kept busy. When the combat situation allows, close-order drill, squad and platoon problems, and practice marches are on the schedule.

Colonel Charlie believes that relaxation each day is essential. Moving pictures are shown even if only a few men can attend. During the quiet period, two shows a day are common. He puts emphasis on organized team sports.

He maintains his reserve constantly. He is on friendly, but not familiar terms with the staff and men. Discussions and arguments among the staff go on during meals, but the Colonel seldom joins in. He frequently demonstrates his confidence in his staff and his battalion commanders. He has selected his most forceful officer as his G1.

COLONEL CHARLIE'S regiment seems almost to run itself. The officers and men seem to exert no great effort, but the job gets done. Both men and officers have a great deal of pride in their regiment. They freely state that they have the best regiment in Korea and men in any company of the regiment will tell you they have the best company in Korea. Instances frequently occur in which men with minor wounds try to stay with the outfit instead of being evacuated.

This regiment has never been "clobbered" and is proud of that fact. It has been through hard fighting, but each time it has had relatively small casualties. In general the men prefer to defend rather than to attack.

Rather frequently the men express the opinion that most of the training and restrictions (such as the prohibitions against vehicles moving after dark) are unnecessary and that in that regard the regiment is a chicken outfit.

The most conspicuous characteristic of this regiment is its teamwork. When the regimental commander was changed recently, the regiment continued functioning as smoothly as before. It is a dependable, well trained, competent team.

THERE are three commanders. Each has impressed his personality on the officers and men of his regiment. One is forceful and tough, one is experienced but critical, and one is quiet but firm. Their regiments? One fights hard and recovers quickly, one fights well when it has to, and the other is dependable and competent. Which is the best regiment, and which the best commander?



REPORTS AFTER ACTION

The supporting arms and services in Korea

TRUCK PLATOON — Withdrawal from Taejon

Narrator: Lieut. Ralph C. Boyd

Historian: Capt. John G. Westover



In Japan I served as Motor Officer for the 24th Quartermaster Company and I got to know my men very well. My men drove, maintained, and repaired all of our vehicles. When the division was alerted for movement to Korea we reorganized into three truck platoons. I commanded one of these and had twenty men, eighteen 2½-ton trucks, a jeep, and nineteen trailers.

Before leaving Japan the trucks were loaded with supplies of all classes. We arrived in Pusan on 5 July 1950, and immediately the trucks were reloaded onto flatcars and started for the front. The supplies remained aboard and the lashing of the vehicles was as simple as we could make it. The drivers rode with their vehicles but they didn't get much rest before arriving at Taejon at 1100 on 6 July.

In Taejon we detrained the vehicles and unloaded the supplies. We then immediately reloaded the trucks with Class I and III supplies, mounted a battalion of the 21st Infantry, and started for Choch'iwon. On discharge of cargo and passengers the platoon was directed to augment the transportation of the 21st Infantry Regiment.

It was 2100 when we left Taejon and we entered Choch'iwon at 2300. In town, a regimental officer directed me to drive the infantry two miles farther north. Actually we detrucked the foot soldiers within a quarter of a mile of their defense positions. We heard sporadic small-arms fire.

After unloading the infantry our convoy became confused in the dark. Reorganization was slow. Most of the drivers had had no sleep for forty-eight hours or more, and as we started back to Choch'iwon the convoy was broken by a sleeping driver. As soon as I realized what had happened I sent SFC Willis D. Richardson, my platoon sergeant, to relieve the driver. The convoy arrived at Choch'iwon at daybreak of the 7th.

In Choch'iwon I reported to the S4 of the 21st, and he showed me where to unload the supplies. We were still unloading the trucks when the enemy attacked. The North Koreans penetrated our line and flanked us. Soon snipers were making the town very uncomfortable and communication with division was cut. The S4 ordered me to quit the unloading and take the remaining supplies to Pugang-ni. He gave me a detail of fourteen men to help with the unloading and to set up a guard. I was then to return my trucks to Taejon and report the situation to division.

Pugang-ni was just a village of fifty mud shacks perched on an incline to the left of the road. On the right was a rice paddy. The only location for a supply point was a small clearing about 100 feet square. I unloaded the cargo under a tree, posted the guard, and set off for Taejon. I arrived about 1400 on the 7th. I reported to G2 on the situation at Choch'iwon, and then reported to G4.

We were no sooner in than out of Taejon. Half of the trucks were dispatched to haul artillery ammunition. The remainder were divided: Sergeant Richardson took four trucks of ammunition to the 34th Infantry at Nonsan, and I led four back to Choch'iwon. I found that the 21st Infantry had cleared the town and all was well there. But Richardson's men had quite an experience. An enemy road block was forming along the MSR as his trucks drove into Nonsan. When the vehicles began the return trip a machine gun very effectively blocked the road. The four drivers and sergeant dismounted, flanked the gun, knocked it out, and returned to Taejon on the following morning.

I want to underscore the spirit of my drivers. Since arriving in Pusan on the 5th there had been no rest except on the flatcars. Like everyone else these men thought that the intervention in Korea was going to be little more than a banana war. Yet they worked steadily without complaint.

For the next several days my truck platoon was based in Taejon. While we continued to be busy we had some time for rest and maintenance. The main burden of getting supplies forward from division was handled by trains which operated right to the regimental supply points.

Heavy enemy pressure on the 21st Infantry at Choch'iwon caused that regiment to pull back behind the Kum River. My truck platoon and another moved the 19th Infantry forward to extend the line along the Kum. Our trucks drove right to the main line of resistance and the infantry unloaded. There was some small-arms fire near us, but we had no casualties. The truck platoon support-



THIS IS ANOTHER in the series of after-action reports covering the work of supporting arms and services in Korea, prepared by Army historians through interviews. They are published in the COMBAT FORCES JOURNAL by permission of the Office of the Chief of Military History, Department of the Army.

LIEUTENANT RALPH C. BOYD, Quartermaster Corps, was motor officer of the 24th Quartermaster Company, 24th Infantry Division, in Korea until he was wounded. He is now a company commander in the Quartermaster Replacement Training Center, Fort Lee, Va. CAPTAIN JOHN G. WESTOVER of the Office of Military History interviewed Lieutenant Boyd on 13 March 1952.

ing the 34th Infantry at Nonsan, however, was not so fortunate. Nonsan was cut off and the platoon lost three vehicles as it ran the escape road.

On 16 July the 19th and 21st Infantry regiments were attacked by strong enemy forces and on the 17th they were encircled and pushed back from the Kum River. My trucks left the regimental position only a half hour before the trap was sprung. I believe that the enemy allowed us to escape because they were afraid that fire on the trucks would alert our infantry. The 19th Infantry had to burn all of its organic transportation when it cut its way out. Following this action the 34th Infantry set up a perimeter defense of Taejon while the remnants of the 19th and 21st reorganized in Okchon.

The defense of Taejon was very mobile. Every two or three hours company strength patrols of the 34th reconnoitered four or five miles beyond the perimeter. The companies had arrived in Korea with greatly reduced strength and the fighting had taken its toll. Sometimes an entire company could be loaded into one truck. When an enemy force was encountered the infantry dismounted and probed its position. Frequently the caliber .50 machine gun on our quartermaster truck was used as a base of fire. When the infantry was ready to disengage they returned to the trucks and we drove back to town. There were some infantry casualties in these actions but none of my drivers was injured.

THE 19th Infantry came to Taejon to bolster the defense of the town but on the morning of the 20th the enemy surrounded us. Soon fighting was in progress inside the town. I guess I've always wanted to witness an entire battle from a hilltop and most of the wish was granted here. My platoon was situated on high ground and the entire action was visible. At 1100, however, enemy tanks spotted us and began to pepper us. We drove into built-up area and appropriately got into some ditches while waiting for instructions. Some of the more adventurous of my men went sniping, and one man claimed that he shot four enemy soldiers.

About 1600 the motor officer of the 34th told me to join the regimental train for a dash out of town. He said that the 21st Infantry had cleared the road but that we would have to move fast. Along the route I saw signs that the 19th Infantry's convoy had not fared well. They had lost all but two trucks, and those were driven out on their rims. Their litter and dead were all over and many buildings were burning. Even in town we were halted by sniper fire.

The convoy headed toward Okchon. A mile beyond Taejon it ran into a roadblock and the trucks, bumper-to-bumper, tried to run it. Several vehicles were knocked out and the convoy came to a halt. Quickly the disabled trucks were pushed off the road and convoy got under way again. Three of my drivers were wounded—one in the head and two in the back—but every man continued to drive.

The convoy drove only 200 yards when it ran into a very heavy mortar concentration. It was accurate fire and few rounds missed the road. Progress was blocked by disabled and burning vehicles, and the fire searched up and down the column until our convoy was in shambles. Gasoline was afire and ammunition exploding. Soon most of the 150 vehicles were useless.

There was nothing anyone could do except lie in the ditches and pray for darkness. When it came I ranged the area looking for a senior officer to take charge. I could find only a chaplain and a Medical Service Corps officer, so I organized everyone near me. Bunched up in an area less than fifty yards square were 250 men. I located six vehicles which we could operate: a full-tracked artillery prime mover, two half tracks, two 2½-ton trucks, and a jeep. I set the prime mover to clearing the road. The seriously wounded were loaded into the other vehicles and all who could walk moved along the ditches. Occasional machine-gun and small-arms fire came near our column but I had warned men not to fire back. I believed that we would be harder to locate that way, and there was a chance that the enemy might think us part of their own force.

It was slow going, but we marched seven miles without serious difficulty. I believed that we would now make it to Okchon without further trouble except for two tunnels in the road. I decided to use a by-pass that went around and above them. By this time I was very tired and Sergeant Richardson and I climbed on top of the artillery prime mover to ride. Near the first tunnel a machine gun opened fire on our column. Three rounds tore into Richardson's right arm, and one creased my knee. The impact of those bullets knocked us off the prime mover and we struck some large rocks along the side of the road.

I don't know how long I was unconscious, but when I came to, it was very quiet. The vehicles were gone and even Richardson had disappeared. My wound was not serious and it encouraged me to move faster. I didn't walk, I ran the next two and a half miles to our line. There I was sent to the aid station, and the medics put me into an ambulance for evacuation to Japan. I got out of the ambulance, hitched a ride to division headquarters, and reported to G4. After I had talked to him I went to G2 and reported what I had seen during the previous day and night. Then I reported to the medics and was evacuated.

From the Taejon fighting my platoon came out exceedingly well. We lost our vehicles and had five or six wounded, but no one killed. While I was in Japan the division sent me a Silver Star for having organized and led the remnants of that convoy to safety. I guess the best news I had was about Sergeant Richardson getting out all right. He's the best friend I've ever had.

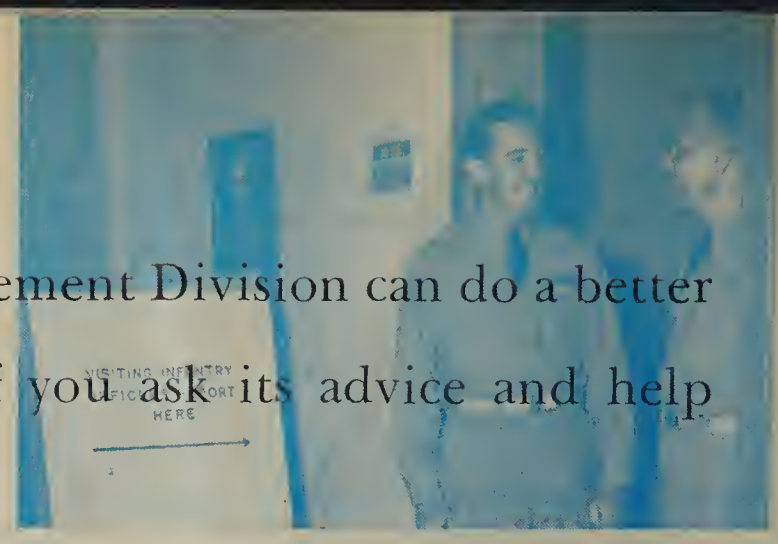
A convoy rolls across a ponton bridge over the Han near Seoul in December 1950.



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Soldier's guide to GUIDED MISSILES 3

Guided-Missile Guidance

Captain Robert W. Fye

IMAGINE the advantage of the ability to correct the course of artillery projectiles after they leave the gun!

The incorporation of a guidance system in a projectile, along with a means to physically change the projectile's path, permits it to correct for errors at the target. The result is a guided projectile, or "guided missile."

The first article in this series described how and why guided missiles fly, as well as some of the effects of supersonic flight. The second discussed the principles of jet propulsion and the operating characteristics of the jet engines used in missiles. The purpose of this final article in the series is to discuss the vital element in any guided missile that makes it a useful weapon: its guidance system.

Need for Guidance

UNGUIDED rockets have been employed in warfare in the past, but they were always outmoded by such improvements as cast gun barrels, breech loading, and rifling which gave more accurate and longer-range fire. Since an artillery projectile reaches its maximum velocity as it leaves the gun barrel, it is comparatively easy to predict and shape its path, which is essentially a ballistic or parabolic trajectory. On the other hand, a jet-propelled missile usually does not reach its maximum velocity until sometime after it is launched, making it difficult to predict its course unless there is some form of guidance.

But, if a missile can be guided

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Aiming . . . after the trigger is pulled

throughout its flight, its initial dispersion or inaccuracy can be corrected during the remainder of the flight. This permits the missile to use jet propulsion and thus far outdistance, in range, all conventional artillery.

The ability to change the course of a missile in flight has other advantages. For example, a free-flight, unguided projectile cannot correct for nonstandard atmospheric conditions it encounters (unforeseen side winds, changes in air density, and other elements), or for nonstandard conditions of manufacture (the inability, with mass-production methods, to make two items exactly alike), both of which result in deviations of the projectile from its standard trajectory. However, guided missiles can compensate for these factors, since they have the means to detect and correct for variations from their desired flight path.

Further, there has never been an antitank or antiaircraft artillery projectile that could maneuver with its target. Thus, the accuracy of fire against such targets is dependent upon pre-fire prediction and is limited by the capability of the enemy to maneuver after the prediction is made. This is a serious limitation, particularly in antiaircraft fire. Guided missiles can overcome this advantage of maneuver which the enemy possesses if they are designed to match their targets, maneuver for maneuver.

So the requirement for incorporating guidance systems in missiles stems from three factors. First, control is needed to make missiles accurate at the long ranges that jet-propulsion power plants give them. Second, nonstandard conditions of manufacture and the atmosphere must be considered and compensated for, since they can produce sizable errors at the target. Finally, in order for missiles to be effective weapons they must be able to match the evasive action of targets.

Fundamentals

TWO problems arise in any effort to control unpiloted craft in flight. Initially, the missile must be properly aligned or oriented in space. This means that the missile can interpret up from down, left from right, and rolling from stabilized flight. Control of this type is called attitude control. However, a missile needs something besides attitude control in order to hit a target. It requires a method to keep it on the desired path or trajectory. This is called path control.

Attitude control must be effected before path control can be attempted. For example, if a missile is not roll controlled, we do not know the position of its movable control surfaces or fins which we wish to position so as to guide the missile along its desired path. It is obvious that if a missile which we presume to be roll stabilized has actually rolled over on its back, a command to the missile to go left will result in the missile's moving off to the right.

To control a missile's attitude, we are concerned with the angular motions of yaw, pitch and roll which the missile can undergo. Figure 1 shows that these motions occur about three mutually perpendicular axes through the missile. In order for the missile to have complete attitude control, it must be able to detect any of these three angular motions, which it interprets as yaw, pitch, or roll errors, and correct for them by yawing, pitching, or rolling the missile back to its proper attitude. Gyroscopes are normally employed in missiles to establish a reference from which these angular errors may be detected. Figure 2 indicates the basic components of the ordinary gyroscope, which operates on the

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principle that a mass (the rotor or flywheel as it is sometimes termed) rotating at high speed possesses a certain degree of rigidity in space (the property a gyro has of remaining fixed in its plane of rotation as it spins around). Thus its spin axis establishes a fixed line in space regardless of motion of the rest of the gyro or the missile in which the gyro is mounted. The gimbaling system of the gyro is so arranged that one gimbal moves with the missile as it rolls, pitches, or yaws, while the other gimbal remains

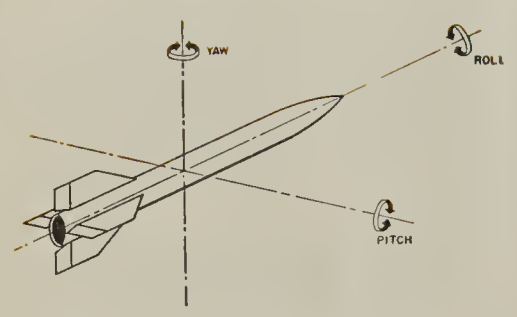


Figure 1. *Yaw, pitch and roll axes.*

fixed with the rotor. This relative motion between gimbals is equal to the angular motion which the missile has undergone, and can be converted to a usable electrical error signal. The signal actuates a power system, called a servo, which positions appropriate control surfaces so as to correct the missile's attitude and reduce this error to zero.

WHAT about these control surfaces? In most cases they are movable vanes or fins, similar to the rudders, elevators, and ailerons used by conventional aircraft. When moved from their neutral position in a high velocity air stream, they cause the missile to turn, climb or dive, or roll. Unfortunately, there are times when these surfaces are not effective, namely, when the missile is not traveling at sufficient velocity and when the missile is in the upper reaches of the atmosphere, where the air is quite thin. In both cases, the air stream will not exert a sufficient force on the control surfaces to enable them to control the direction of motion, or attitude, of the missile. For control under these conditions, we must resort to other means. The Germans solved the problem of controlling their V-2 missile while at low velocity in a unique manner. The V-2 was too large to be boosted into immediate supersonic flight. It rested on its launcher until the thrust from its rocket motor exceeded the over-all weight of the missile, at which time it took off. During this period the missile was traveling slowly, picking up speed as it ascended, and yet this was a critical period in the life of the missile. If it were not stabilized early in its flight, control could never be established and the flight was almost certain to fail. Since its control surfaces were not yet effective, the Germans devised a system of carbon jet vanes, actually small control surfaces, which they placed in the exhaust stream of the rocket motor. Regardless of the velocity of the missile itself, its jet stream from the motor left the missile at about 6,730 feet per second! Hence, moving the jet vanes, when attitude errors were detected, deflected the exhaust gases and produced a force on the missile similar to that produced by the movement of conventional control surfaces in an air stream. This force caused a change in the direction of motion of the missile. Of course, these "internal" control surfaces, exposed to temperatures on the order of 3000°F, burned up within a short period of time, but by then the missile was traveling at such a velocity that its control could be turned over to the missile's external control surfaces.

For control at high altitudes, the air is not dense enough to permit the use of control surfaces, and jet vanes would long since have been consumed. A solution to this problem is obtained by mounting the missile's power plant (which, in all probability, would be a rocket motor rather than an atmospheric jet engine at the altitudes we are now considering) in a series of gimbals similar to the gimbaling system used with a gyroscope. By causing attitude error

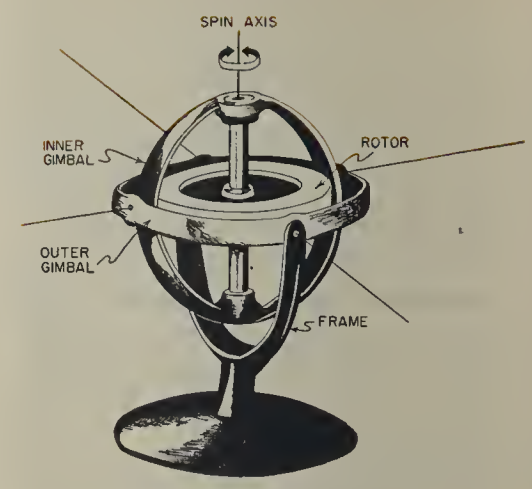


Figure 2. *Simple gyroscope.*

signals to rotate these gimbals with respect to one another, the direction of the motor's line of thrust can be changed, resulting in a change in the missile's attitude or heading.

Regardless of the methods used to achieve it, attitude control has only one purpose—to orient or stabilize the missile in space so that it can, in turn, receive and properly respond to path control commands. Note that all of the functions performed to obtain this attitude control (detection of yaw, pitch, and roll errors and their correction through proper movement of control surfaces) are accomplished entirely within the missile, requiring no outside source of information. The problem is quite similar to the actions of the automatic pilot used

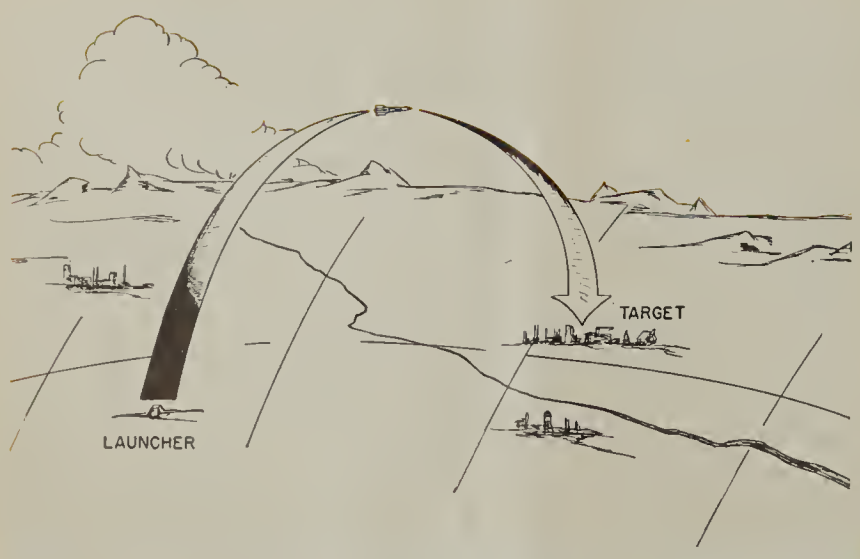


Figure 3. *PRESET. Programmer in missile causes it to follow predetermined path to target.*

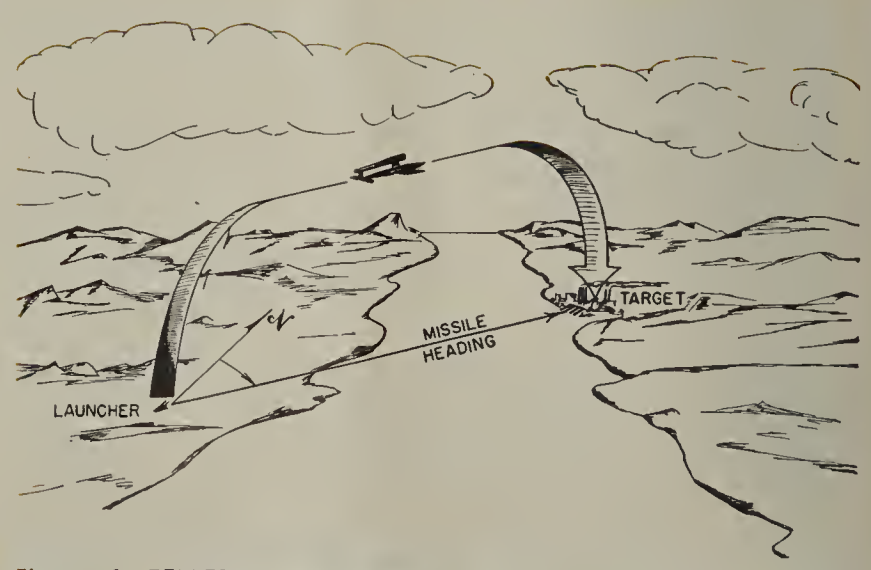


Figure 4. *TERRESTRIAL REFERENCE. Compass, altimeter and airlog keep missile on prescribed path.*

in many conventional aircraft today.

Assuming the missile is aware of its attitude in space and can keep itself properly aligned, it is still faced with the problem of guiding itself or being guided along some flight path to the target. This is path control, the process of noting where the missile is, comparing its location with where it should be, and correcting for any deviations so that the missile will continue on a course that will result in a target hit. Because this is a bigger problem than attitude control, over-all missile guidance systems usually take their name from the manner in which the path is controlled.

Guidance Systems

THE method employed to guide a missile along its path usually depends on the type of missile and the target it is to attack. Certain guidance systems lend themselves to surface-to-surface missiles (SSM) which normally are used against fixed targets, while other systems are particularly adaptable to surface-to-air missiles (SAM) or air-to-air missiles (AAM), where enemy aircraft or missiles are the targets. We will discuss the systems used principally by SSM.

Preset. This is a system wherein a predetermined path (indicating a fixed target) is set into the missile before launching. It cannot be adjusted during flight. The missile is set to fly a given distance and any corrections for wind or other effects must also be made prior to launching. The German V-2 was a preset-guided missile, in which a programmer, or time clock, within the missile closed various electrical contacts as the flight progressed, causing different functions to be performed, such as pitching the missile over from the vertical after launching, or cutting the missile's fuel off. Figure 3 shows a typical trajectory of this missile. Such a system is very simple, but since all programmer adjustments and settings must be made before launching, unforeseen factors that cause the missile to deviate from its prescribed path during flight cannot be corrected. Hence the accuracy of the system is quite poor; the V-2 had a radial probable error of about eight miles at a range of 150 miles. Nevertheless, preset guidance systems have certain values where great accuracy is not required. Also, there are times in the development of a missile where flight test data are needed on such things as the propulsion and aerodynamic performance of the missile. Rather then test the missile with its entire guidance system, it may contain only a programmer which causes it to perform certain simple maneuvers which are sufficient for the test being conducted.

Terrestrial Reference. This is a more refined guidance system, in which the missile flies a predetermined path, using components or devices in the missile which react to some phenomena of the earth to keep it on the path. The phenomena which might be used are the earth's gravitational, magnetic and electric fields, and its atmosphere. The German V-1 was an example of a terrestrial reference-guided missile. It used a magnetic compass to keep it headed in the direction of the target, an altimeter to keep it at the proper altitude, and an airlog to determine distance traveled toward the target. An airlog is a wind-driven propeller carefully calibrated so that a given number of turns of the propeller, mounted in the nose of the missile, is equivalent to a specific ground distance covered. The propeller counts its revolutions and when these equal the predetermined distance to the target, the airlog initiates a signal to dive the missile into the target. Figure 4 illustrates the trajectory flown by such a missile. This system has generally the same advantages as preset guidance and is likewise quite limited in range due to the arbitrary preflight predictions that must be made and set into the missile's guidance components.

Radio Navigation. This is a system of guidance for the control of a missile along a predetermined path in which the missile obtains information from one or more fixed radio transmitting stations in order to stay on the desired path. The navigation systems of SHORAN (SHort RAnge Navigation and LORAN (LOng RAnge Navigation) are examples of this type of guidance. In the latter, which is the most interesting for missile applications, the missile carries a radio receiver and listens for signals sent simultaneously from two base transmitters. The missile measures the time delay between receipt of signals from the two stations (the amount of delay indicating how much nearer the missile is to one station than the other). The missile's path is calculated prior to launching so that to be on course the missile should always be listening for and measuring the same delay between received signals. To do so, the missile flies a curved, hyperbolic course. If the missile deviates from this path, it will not hear the signals with the correct time interval between them and will navigate to get back onto its proper path. This scheme of guidance is illustrated in Figure 5. Such a system has the advantage of using presently known techniques, but like any system which depends upon radio or radar transmissions, it is subject to interference and enemy electronic countermeasures. These can take the form of either deceiving the missile with false signals or jamming the missile so that it cannot hear the base stations' transmissions.

Celestial Navigation. This is another system in which the missile flies a predetermined path, navigating itself along

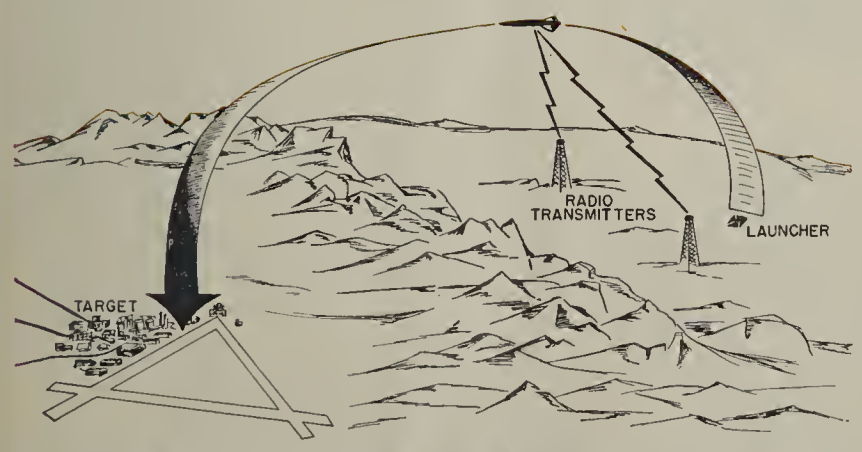


Figure 5. *RADIO NAVIGATION. Missile navigates upon receipt of signals from synchronized ground transmitters.*



Figure 6. *CELESTIAL NAVIGATION. Missile determines its position and navigates by observing the stars.*

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the path by celestial observations. The method employed is essentially that used by navigators at sea who determine their position by observation of two or more stars. The missile must contain star-tracking telescopes which remain locked on previously designated stars throughout the flight. They continuously "shoot" these stars, determining the missile's actual position which is compared with where the missile should be at this time. Errors in missile position cause steering commands to be generated which bring the missile back on course. In Figure 6, this system is illustrated. Such a guidance system is entirely self-contained within the missile and hence is not subject to enemy countermeasures. Also, its accuracy is independent of range, since star observations can be made just as accurately at the end of a flight as at its beginning. However, the missile-borne equipment for such a system is quite complicated, and weather conditions can influence its usefulness.

Inertial. In this guidance system, the path of the missile can be adjusted after launching by devices wholly within the missile which make use of Newton's second law of motion—force is equal to mass times acceleration (F=ma). These devices, called accelerometers, are sensitive to accelerations which the missile undergoes, as it flies along or deviates from its flight path, due to the missile's thrust, side winds, or other forces that may act on the missile. After detecting these accelerations, it is a simple matter to doubly integrate them (a mathematical process that may be accomplished electronically or mechanically) to obtain the distance the missile has traveled due to the force. So we might call the accelerometers "distance-meters" or odometers, just as the devices in automobiles which indicate velocity are called speedometers. With this distance information the missile can tell how far it has deviated from its prescribed flight path or what distance toward the target it has covered, and what corrections must be made. Like celestial navigation, this is a completely self-contained system, requiring no commands or other signals from the ground. Complexity of missile equipment is a drawback of this system.

Captain Fye has discussed five basic systems of guidance, all of which have particular application against fixed targets, where the missile, probably an SSM, flies a predetermined path. Systems suitable against moving targets are largely classified and cannot be discussed in this series.—The Editors.

Scratch Two T-34s





Major James B. Webel

FOLLOWING a spectacular 106-mile dash in 23½ hours through enemy territory and a juncture with the 7th Division at Osan (see the January 1951 Combat Forces Journal), Task Force 777 had settled down to the routine job of letting administration and supply catch up with the troops. On 29 September 1950 the 7th Cavalry Combat Team command post was comfortably housed in one wing of a large Korean school in Osan while the 1st Battalion occupied the other wing. The 3d Battalion was settled in another schoolhouse in the south part of Osan with smaller units comfortably set up in other buildings in the town. The 2d Battalion was still in Army reserve near Taegu and was scheduled to be flown up within the next few days. The enemy was in full flight and except for posting normal security against guerrillas, no one was expecting any combat.

This peaceful arrangement was suddenly shattered by the arrival of a dusty jeep and an excited sergeant. A supply convoy of twenty 2½-ton trucks dispatched by the regiment for supplies earlier that day had been ambushed by ten T-34 tanks south of Pyongtaek, and the truck convoy was hastily beating a retreat towards Osan with the tanks in pursuit.

Major James B. Webel, Infantry, was regimental S3, 7th Cavalry Regiment, during the time of the action he describes in this article. After enlisted service in the 34th Infantry Division, he graduated from the Infantry OCS in July 1942 and served in Europe as an assistant S3, XXII Corps. He served ten months in Korea as company commander and battalion and regimental S3. He is presently on duty in the Tactical Department, United States Military Academy.

The regimental combat team commander, Lieutenant Colonel (now Colonel) William A. Harris immediately ordered one rifle company (K Company) of the 3d Battalion and the attached C Company of the 70th Tank Battalion alerted to move to a rendezvous near Sojong-ni, seven miles north of Pyongtaek. The rifle company was to be motorized with six 2½-ton trucks. He further ordered that the division headquarters and division air officer be notified and that fighter aircraft be requested immediately. Almost simultaneously orders were issued for the mobile command group to prepare to move out and for the 1st Battalion to furnish two machine-gun-mounted jeeps with two bazooka crews to accompany this mobile command group (MCG) on reconnaissance. A mobile aid station with Capt. Pete Scoles was also attached to the MCG. The 3d Battalion was alerted to be prepared to follow its lead company on order if additional strength were needed.

The MCG hastily assembled, mounted and swung into line. This group contained the regimental S3 in a machine-gun-mounted jeep, the regimental CO's jeep which also contained "Padre" McCullough, the regimental chaplain, who habitually accompanied Colonel Harris, the shotgun jeep with a caliber .50 machine gun and a BAR, the TACP (Tactical Air Control Party) jeep, artillery liaison officer's jeep, the tank liaison officer's jeep, and the attached mobile aid station jeep. All of these vehicles carried radios and could keep in communication with their appropriate headquarters. As the group was assembling the security platoon machine-gun jeeps with bazooka crews from the 1st Battalion pulled into the schoolyard and the MCG pulled out, headed south.

En route to the rendezvous, follow-up details were given by radio to the tanks under Captain (now Major) Shaw and King company under Captain (now Major) John Flynn. The MCG arrived at the rendezvous about 20 minutes ahead of the tank company. There was no sign of enemy armor and a hasty reconnaissance was made to select blocking positions for the tanks and infantry and a plan of action was formulated.

In the meantime, the TACP had made contact with a Mosquito plane which had located the enemy armor. Four Marine Corsairs from Seoul were soon in the area and were sent in on strikes against the hostile armor. The Mosquito also reported that a large column of dust and something resembling the Indianapolis Speedway was headed in the direction of the MCG. This, of course, was our own Service Company jockeys headed for home.

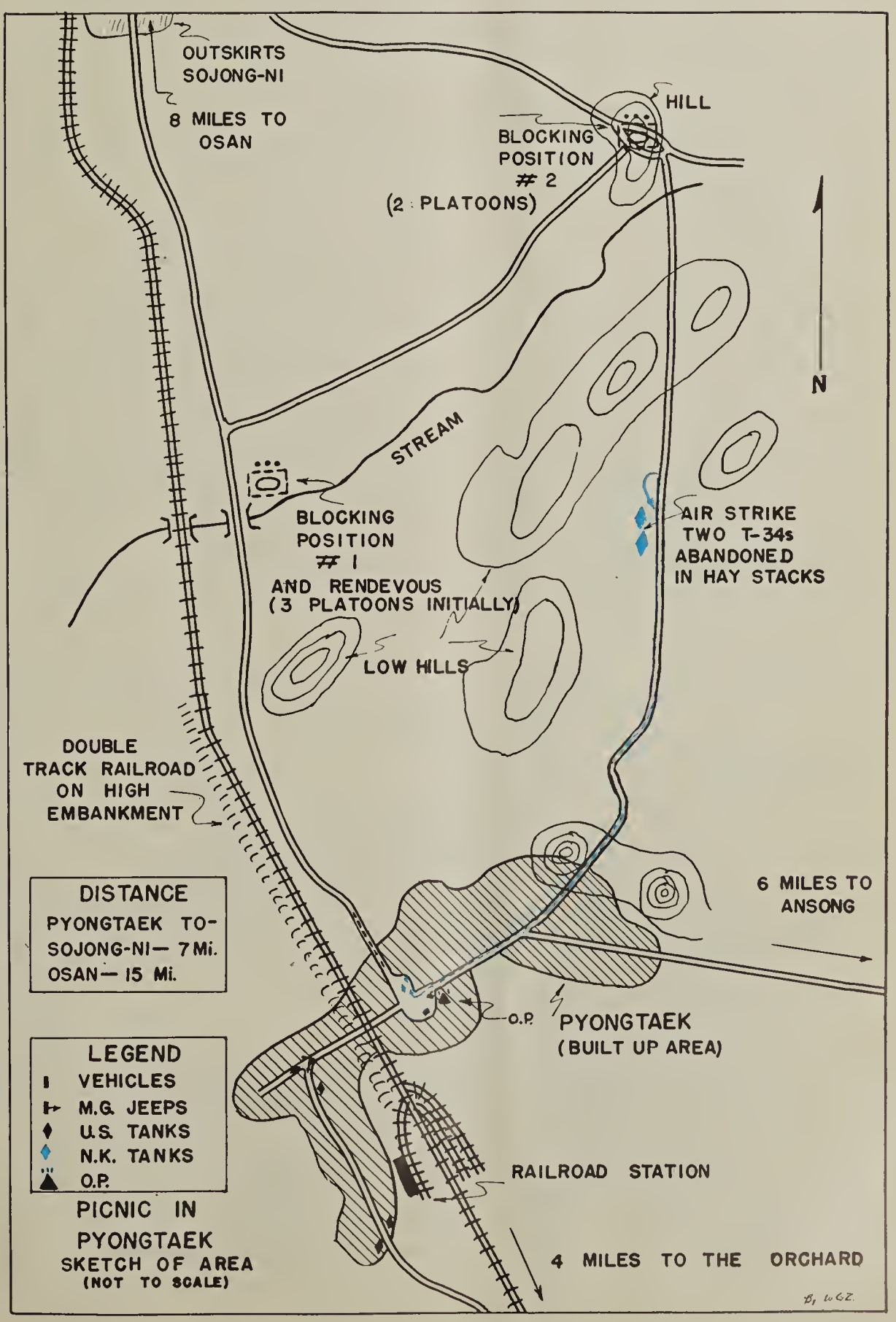
This wild-riding crew soon appeared and upon being flagged down one of them added to the details of the ambush. The enemy force of "ten T-34 tanks and some infantry" was hidden in an orchard near the main highway. As the supply convoy neared the orchard one of the tanks opened up with its 76mm gun. Fortunately its fire missed the first vehicle but during the resultant confusion another vehicle was wrecked. As the trucks began to turn around, the T-34s began rolling out of the orchard shooting as they came. The assistant S4 convoy commander immediately got one bazooka crew from the escort and attempted to get close enough to the orchard to go into action. The rest of the story was confused; however, our trucks, except for one, apparently had all escaped and headed north. Despite our assurances that the tanks were still some miles back, the trucks departed in high gear as soon as they were released.

While this interview was going on our tanks arrived and were placed in position to meet the enemy, pending arrival of King Company. During the same period the Marine Corsairs claimed to have knocked out two of the ten tanks; unfortunately the planes were short of gas and ammunition and had to go back. Almost at the same time the Mosquito aircraft had to leave the area for the same reason. Its last report was that seven of the T-34s were entering the outskirts of Pyongtaek from the south.

A hurried map study indicated that the T-34s could continue north from Pyongtaek towards our twelve tanks, or they could swing either northeast or southeast from the town on secondary roads. We were anxious that they head straight into our present trap, of course, but the other possibilities had to be examined. If they did not come to us it was decided that we would go to them. Either by pursuit should they turn southeast, or by bottling them up with tank blocks in Pyongtaek and northeast of it, if they should turn northeast. We felt that by pursuing them from Pyongtaek they would either be forced to stop and fight or flee into our waiting block of M-4s in hull defilade.

WHILE these plans were being made an artillery liaison plane with Brigadier General (now Major General) Charles D. Palmer, the division artillery commander, arrived. This aircraft regained our visual observation of the enemy and reported that the four enemy tanks had swung northeast from Pyongtaek on the secondary road.

Two four-tank platoons were dispatched to take up the predetermined blocking positions to the northeast. The tank company commander was ordered to remain at the rendezvous to meet the infantry company. The mobile command group prepared to move south to Pyongtaek with the remaining tank platoon to set up a block and prevent the four T-34s in the orchard from entering town from the south until after King Company had arrived. A jeep bearing Captain Flynn arrived as these orders were being issued and he stated that his company would be in shortly. He was



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briefed on the situation and left with the tank company commander to coordinate his plans. The tank company was attached to Captain Flynn within the framework of the plan.

As the mobile command group headed south a flight of F-51s arrived overhead. The L-5 relaying to the TACP via the artillery liaison officer, guided the fighters to the enemy tanks northeast of Pyongtaek and the Mustangs began to strike.

Stopping the extra vehicles just north of Pyongtaek, the personnel of the MCG entered the town on foot with the exception of the tank platoon, two bazooka crews and two machine-gun jeeps which were brought in by the regimental S3 and placed in hasty blocking positions to cover the arrival of K Company. The town was deathly quiet and the few citizens who made an appearance were obviously shaken by the racing trucks, enemy tanks and warlike preparations in and around the town. Despite this we could not seem to impress on them that they should take cover and finally had to threaten them at gunpoint to make them leave the streets.

At this point the L-5 with General Palmer dipped low and dropped a message. This was quickly brought to the OP by "Padre" McCullough. It was a sketch showing that following the air strike northeast of town two tanks had taken cover inside two haystacks and the other two had turned around and were headed for Pyongtaek. This was a real switch as our tank platoon in town was disposed to protect against the threat from the orchard and we had only two machine-gun jeeps and the two bazooka crews in the center of town.

COMPANY K arrived and dismounted at the edge of town. Captain Flynn and the tank commander were quickly briefed on the situation. Captain Flynn began disposing his forces to meet both threats. A message was sent to our tanks north of town to proceed to Pyongtaek. As the infantry moved into the town the regimental CO and S3 climbed on top of one of the straw-roofed buildings and surveyed the road leading to the northeast. In a matter of minutes the two enemy tanks could be heard rumbling down the road and the infantry, not yet in position, began to take cover.

As the first T-34 appeared, Sergeant "Shep" Sheppard swung the caliber .50 machine gun around and fired at its treads at a range of about 150 yards. The T-34 opened up with one round of 76mm and its machine gun. Sergeant Sheppard was shot from the jeep with a leg wound. The S3 turned to the CO and said, "Sir, let's get the hell off this roof." "Let's go," was the reply. The OP was quickly moved about 25 yards off the road between two houses.

The leading T-34 engaged the single M-4 just beyond the railroad track in a brief, but hot, exchange of volleys with neither tank scoring a hit. As the second T-34 tank rumbled into town the first turned north towards Osan and upon seeing our vehicles, pulled to the right off the road overrunning a jeep. The second Red tank also turned north and hesitated behind the first. Both began shooting at our vehicles.

Captain Flynn in the meantime had maneuvered the two 3.5-inch rocket launchers into a position to fire. Cpl. Herbert Kurshensay and Pvt. 1st Class Billy L. Davis scored smashing hits on the rear of both tanks from about twenty-five yards range. In the explosion of the bazooka rockets, Captain Flynn was wounded in the chest by fragments but he continued to direct the deployment of his men.

The North Koreans who were not killed by the bazooka rockets abandoned their tanks. They met a hail of fire from the shotgun crew and infantry.

The enemy tankers took cover in houses adjacent to the road with their burp guns and we were faced with the mission of cleaning up these diehards. The enemy T-34s were burning. The machine-gun ammunition in their turrets crackled like giant firecrackers and there were loud explosions from the 76mm ammunition. The burning tanks blocked our own M-4s from approaching and overrunning the houses into which the Reds had fled.

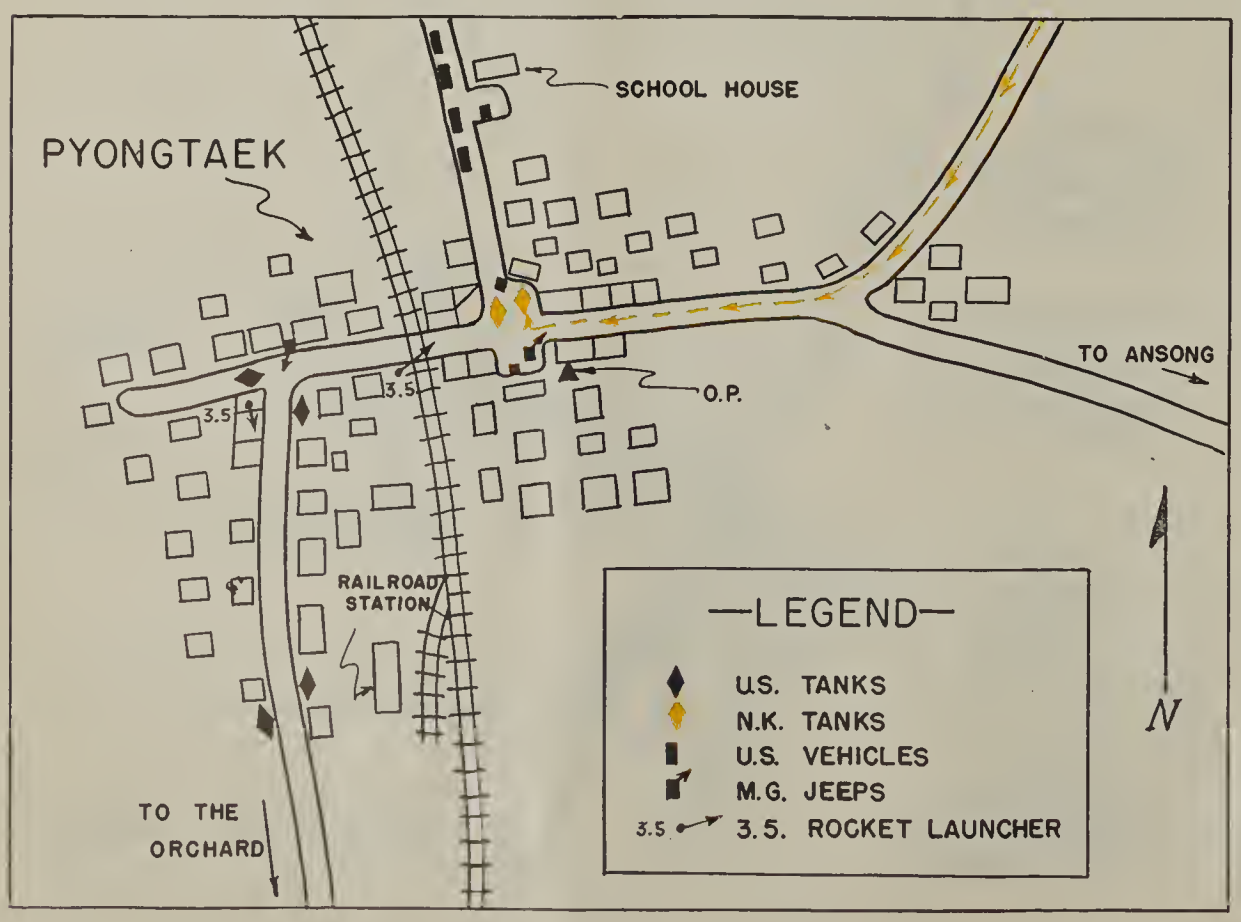
Captain Flynn was finally pulled back to cover protesting all the while and saying, "Aren't they good," and "Boy, that King Company is red hot." The regimental CO ordered him to stay where he was, so Captain Flynn settled down to await the mopping up.

DOUGHBOYS from King Company promptly swept the section of town containing the diehards. Entering rooms where the Reds were holding out, the GIs dueled the burp gunners, killing five of the remaining six with BAR, M-1 and tommy-gun fire. The sixth was captured. He turned out to be the platoon leader of the tank platoon. He was ingloriously returned to Osan, spreadeagled on top of a loaded quarter-ton trailer.

Totaling the results of this encounter, Garry Owen could chalk up two T-34 tanks destroyed, nine North Koreans killed and one officer captured. On the other side of the picture our losses were one wrecked quarter-ton jeep and eight wounded men, all of whom later returned to duty.

The supply convoy had fared worse. The assistant S4 and his two-man bazooka crew were killed by machine-gun fire. Their bodies were found near the orchard. One 2½-ton truck was destroyed and the supply mission was postponed twenty-four hours.

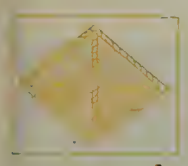
In addition to the two T-34s destroyed inside Pyongtaek, air strikes had destroyed three tanks and the remaining five were abandoned and captured, two in the haystacks and three in the orchard south of Pyongtaek. The enemy infantry withdrew to the hills.



A Finance Corps officer reports on his

TWO YEARS IN THE ARTILLERY

Captain Wittmer I. Schleh



My two-year detail in Artillery is ended and it occurs to me that some observations of my experiences might be of some value to other Finance Corps officers who may be detailed to two years of service in a combat arm. Perhaps what I have to say may make other officers of my Corps approach such an assignment with less trepidation. I am thinking particularly of those who have never had troop duty.

When you receive orders to report to a combat unit after prolonged duty as a Finance Officer you begin to speculate on how difficult it will be to become adjusted to the life. Now those military fundamentals—map reading, camouflage, interior guard, drill and ceremonies—will be an everyday thing. You begin to wish you had devoted more time to them. (Later events will bear out the importance of this.)

The first several weeks are really bewildering. It is an entirely new life with strange things happening with alarming rapidity. It is astonishing that you are expected to perform as though you have had years of experience. This creates a serious mental hazard that remains until experience gives you confidence.

My first three weeks in the 519th Field Artillery Battalion in Germany were devoted to familiarizing myself with what, at that time, seemed to be a million things: the nomenclature, operation and capabilities of the 155mm howitzer; ammunition and how to use it in a given tactical situation; laying a battery; operations of a fire direction center; selection and occupation of a battery or battalion position; and so on.

When my initial orientation was completed, I was informed that I was to be commander of Service Battery. Such a heavy responsibility so early disturbed me. I learned fast because I had to; but it wasn't painless. I caught more hell in those early months than I figured I might get during my entire military career. I managed to stand up under it because I had decided in advance that no matter what happened I would consider it as part of my education. It actually was. It paid off in the end. I made mistakes and a few of them were bad ones. The essential thing is not to become embittered or "let down."

Later, in addition to my job as battery commander, I became battalion S4, as prescribed by our TO&E. My battalion commander at the time was a keen, rough officer who knew his supply and was certainly supply conscious. I had to be on the alert every second. He demanded perfection and expected results. I benefited from my experience as an S4.

Much of what happened to me was because I was a captain. Had I been a lieutenant, the process of learning might have been easier and more gradual. I believe the Department of the Army now requires that each detailed officer attend the basic course of his detailed arm. This will certainly be helpful to the officer and advantageous to the Army. There simply isn't time to prepare yourself in basic subjects *after* the detail commences. It must be done beforehand.

WHAT did I learn, in a larger sense, from my two years in Artillery?

First, that "problems of the troops" is not an overworked phrase; such problems increase or diminish in direct proportion to the effort expended on them by the commander. He must live his job twenty-four hours a day. I learned that the combat readiness, training, and morale of a battery can be undermined through poor logistical support. The word service, which we in the Finance Corps value so highly, certainly means more to me now. I won't forget it.

I learned that technical and administrative services must be tolerant when a line officer tells them he "doesn't have time" to do what they want within an established time limit. A line officer is always crowded for time, particularly if he is a battery or company commander. I don't mean to suggest that carelessness or negligence should be condoned. But I do say that we should do our damnedest to make the way as easy as possible for him so that he can devote maximum time to combat training and leadership.

The old maxim that a commander can be only as good as his staff is certainly true. This applies at battery as well as battalion level. Sloppiness by key persons, either militarily or technically, can be disastrous. One learns to appreciate the effect on the troops of our living up to the Finance Corps motto: "Get 'em paid."

I BELIEVE it is of vital, continuing importance to keep our officers and men conscious that they are soldiers. Prolonged periods of nontroop duty make us forget this. It is equally important that we Finance Corps officers never forget our responsibility as leaders—some day it may be necessary for one of us to defend a position, establish a roadblock, or guard against infiltration in a rear area. A fairly sure method of becoming a good leader during combat is to develop oneself into a leader beforehand.

We Finance Corps officers must constantly refresh ourselves on basic military subjects and elementary tactics—so that we'll be able to handle our end, no matter how rough it may become. The difference betwen operating a calculating machine and a machine gun is great. But if we bridge that difference, the time may come when we'll be able to compute the next payroll, instead of being defeated or dead.

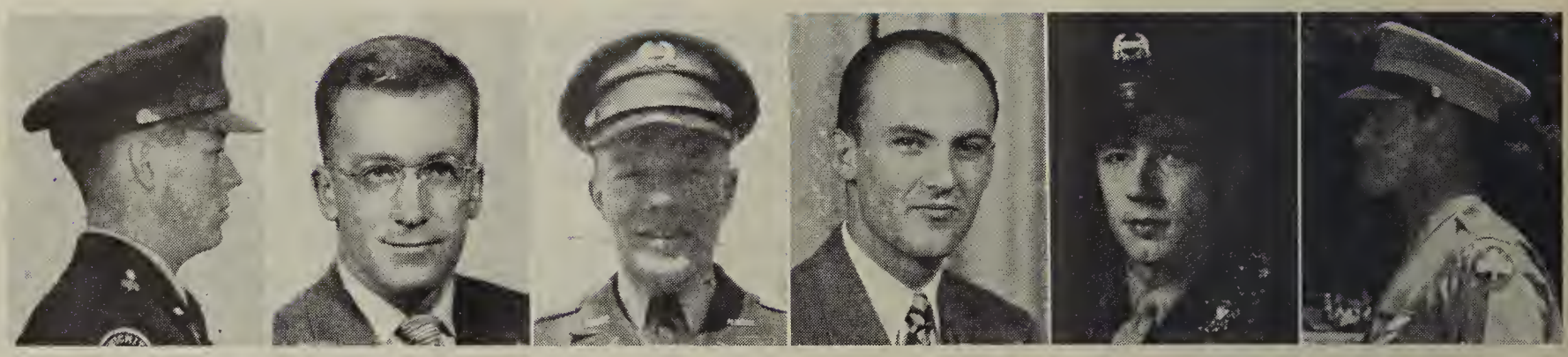
Captain Wittmer I. Schleh, Finance Corps, served two years with the 519th Field Artillery Battalion in Germany. This article is based on a report he wrote to the Office of the Chief of Finance at the conclusion of his tour of duty with the Artillery. He is now on duty at Fort Benjamin Harrison, Indiana.

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1952 ROTC MEDAL WINNERS

The Association of the U. S. Army presents medals
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INFANTRY



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Uni. af Wichita

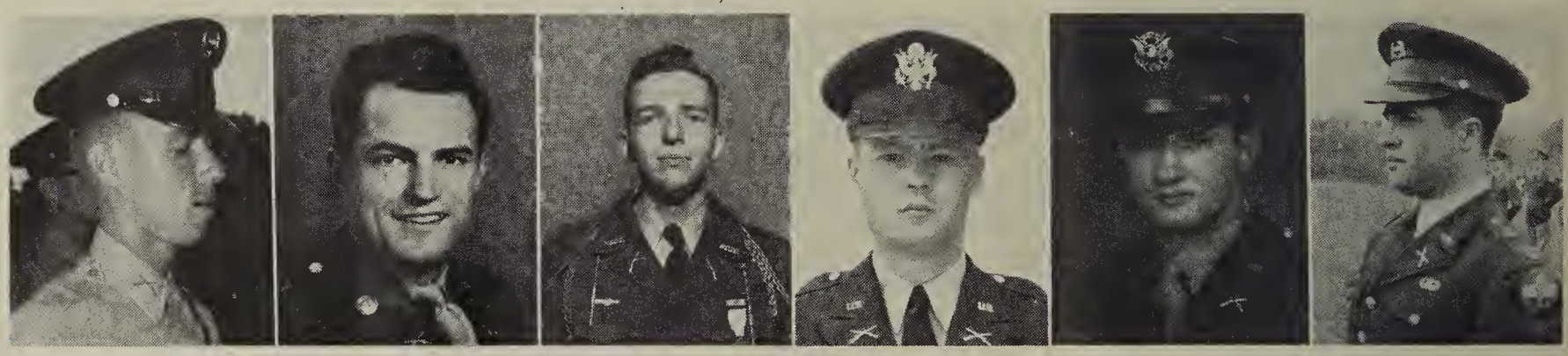
RAY H. RENZ
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CHAS. W. OVERSTREET
Oklahama A. & M.

ALAN A. NORD
Sauth Dakata State

JULIAN F. WAGNER
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Uni. af Arkansas



ADRIAN D. BOLCH
Geargia Tech.

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Presbyterian Callege

JAMES L. COLOMBO
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WILLIAM J. MITCHUM
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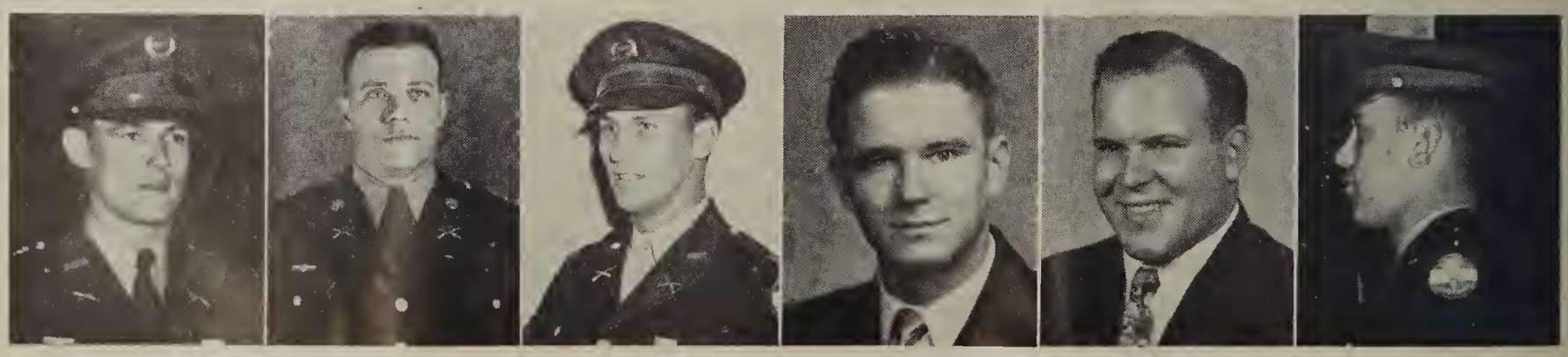
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Wentwarth Military Acad.

RAYMOND J. MATELLI
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GEORGE E. RICHARDS
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CARL L. STURGILL
Western Maryland

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KENNETH R. STEIN
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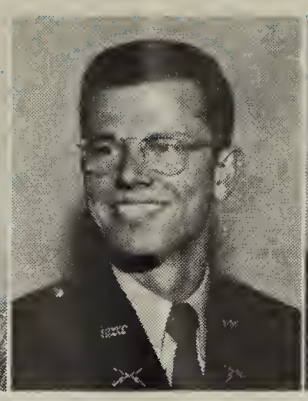
R. J. BRODERICK
Niagoro Uni.



ROBERT H. CARTER
Western Kentucky



S. C. SOLER-FAVALE
Uni. of Puerto Rico



CHESTER L. WARD
Uni. Calif., Santa Borboro



JAMES P. CAMPBELL
Georgetown Uni.

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L.S.U.

JAMES J. COOK
Valley Forge Mil. Acod.

ALBERT Q. HALES, JR.
Kent State

DOLPH F. HAMBY
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HARVEY L. HANSON
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RUDOLPH K. LERNER
The Johns Hopkins Uni.

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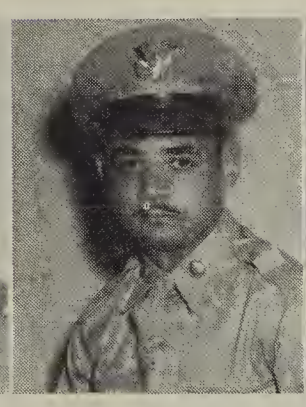
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Xavier Uni.



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THOMAS W. LILIKER
Arkansos State College



JORGE GAUTIER-COLON
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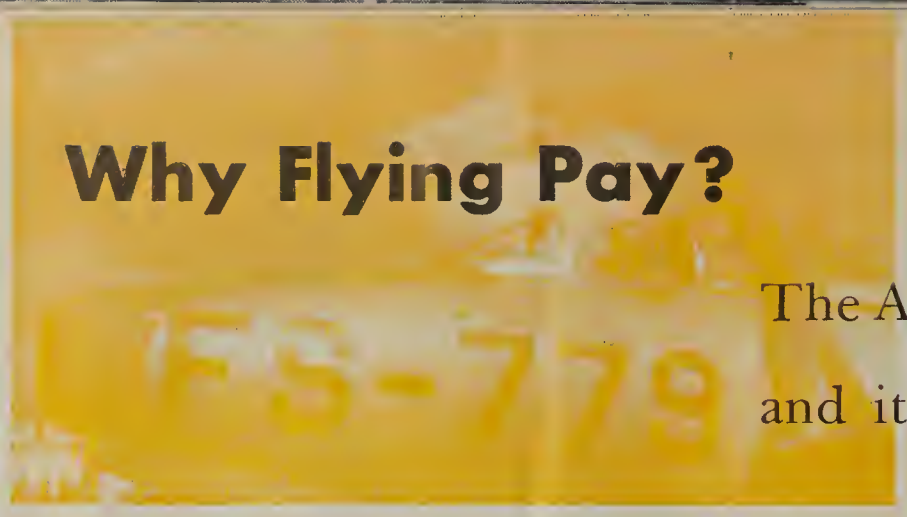
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Why Flying Pay?



The Air Force defends its support of flying pay and its long-established flying status policies

The Air Force not only believes that present rates of flight pay must be maintained or even increased if it is to create a powerful air arm, but also would like to have the "continuing challenges in the area of incentive pay" settled because they "are destructive to the continuity of morale of essential flying officers and airmen."

In a statement to a Senate Appropriations Subcommittee, the Air Force defended flight pay and stated that it "would welcome the assistance of an impartial commission of qualified citizens to scrutinize present incentive rates and flying status policies."

The statement added that any attempt to reduce flying pay or change flying status policies before such a commission could make an exhaustive study would "appear to be of too high a danger potential to be undertaken hurriedly."

"The purpose of flying pay is to recognize the existence of hazard in the military flying career through providing those incentives essential to attracting qualified flying personnel," the statement said.

Excerpts from its defense of flight pay and flying status policies follow.

Policy. "It is the policy of the Air Force that only those personnel needed to meet the requirements of the Air Forces mission . . . will be placed on flying status."

Cost, age, competence. "Average incentive pay for an air crew officer is $1,500 per year. If this incentive proves to be inadequate and an experienced flyer is lost, the training of a replacement costs approximately 40 times the cost of a year's incentive pay. . . .

"It is frequently claimed that the Air Force is top-heavy with old, worn-out flyers. Less than 1 per cent of Air Force flyers are 45 years of age or older. This number of mature professionals is less than the requirement for leadership of a modern Air Force. . . . This number is woefully small should full mobilization be forced upon us by all-out war.

"Competent, mature pilots must be ready at all times to lead combat units. For that reason they must maintain a level of flying proficiency paralleling that of the flyers they may be called upon to lead. . . .

"A pilot with 7 to 10 years of service flying a B-29 or B-47 receives in total pay approximately half the salary of a four-engine airline captain. That is severe competition. If the combat crews of the Air Force are to deliver the results . . . a tangible incentive to attract competent men is essential.

". . . approximately 9 out of 10 flying officers [are] veterans of World War II. . . . Eight of every 10 are Air Reserve or Air National Guard officers. Their willingness to remain on active duty . . . is absolutely essential to the growing demands for security in the air. Logic dictates that a reduction in incentives is not a sound way to retain the services of these essential flyers."

Surgeons. ". . . Doctors, intimately familiar with physical and mental conditions of flying personnel, are essential. Flight surgeons are on flying status in the Air Force. . . . To compromise with the fitness of or to needlessly increase the hazard of military flyers by destroying the surgeon-combat flyer teamwork would be false economy."

To proposals that flying pay for certain flying officers should be eliminated or that flying pay should be cut across the board, the statement had several counter arguments.

Lieutenants. "The incentive pay of a first lieutenant today is equal to about 40 per cent of his base pay. . . . The total incentive pay for flying duty [at the time of Pearl Harbor] approximated 75 per cent. Incentive pay has already been reduced less than 3 years ago . . . further reduction of incentives would be a dangerous gamble."

Generals. "The flying pay for general officers for 1 year is about equal to the cost of one all-weather jet fighter. Avoidable loss of one B-47 because of the absence of a competent air commander would be equal to the flying pay of all flying generals for 5 years. Qualified air commanders and supervisors save their flying pay many times over in accident reduction alone."

Colonels. "The annual flying pay for colonels in the Air Force is approximately half the cost of the aircraft for one jet-fighter squadron. Yet it is colonels who command combat groups and wings in the air. . . . This kind of competence can't be developed after a war starts. If it isn't ready on D-day it will never be available."

Across-the-board. "An across-the-board cut of 25 per cent of incentive pay for pilots, navigators, bombardiers, radar observers, gunners, flight surgeons, flight nurses, etc., would result in an annual saving equal to half the initial and 1-year operating cost of one interceptor squadron. The inevitable loss in flying personnel, reduced morale . . . increased difficulty in . . . recruiting . . . resulting from such a cut is such that the Air Force would readily forego half of one interceptor squadron (one-sixth of one wing) rather than compromise the effectiveness of the 126 combat wings essential to survival."

Off and On. "It has been sometimes proposed that flying officers while on staff duties be removed from flying status. Aside from the penalty aspects of such a system, the experienced flying officer must be qualified to perform a double responsibility. He must understand the strategy, tactics, and techniques and possess the judgment for leadership in the air. This mandates continuity of flying experience. . . . To be a good flyer is not enough. To be a good manager is not enough. To be both is essential and this demands breadth of training and experience.

". . . [The Air Force officer] must blend continuity of flying with executive training, if he is to maintain his value. An 'on again, off again' flying system would either compel the officer to quit flying permanently, which the Air Force cannot afford, or result in such slippage in his flying experience and judgment as to render him of marginal or negligible value for air leadership.

"By the same token, to establish a policy in which some officers did nothing but fly and others did nothing but management and executive functions would clearly split operations and management with inevitable waste and ineffectiveness."

FIRE SUPPORT COORDINATION

Lieutenant Colonel
Carl W. Schaad

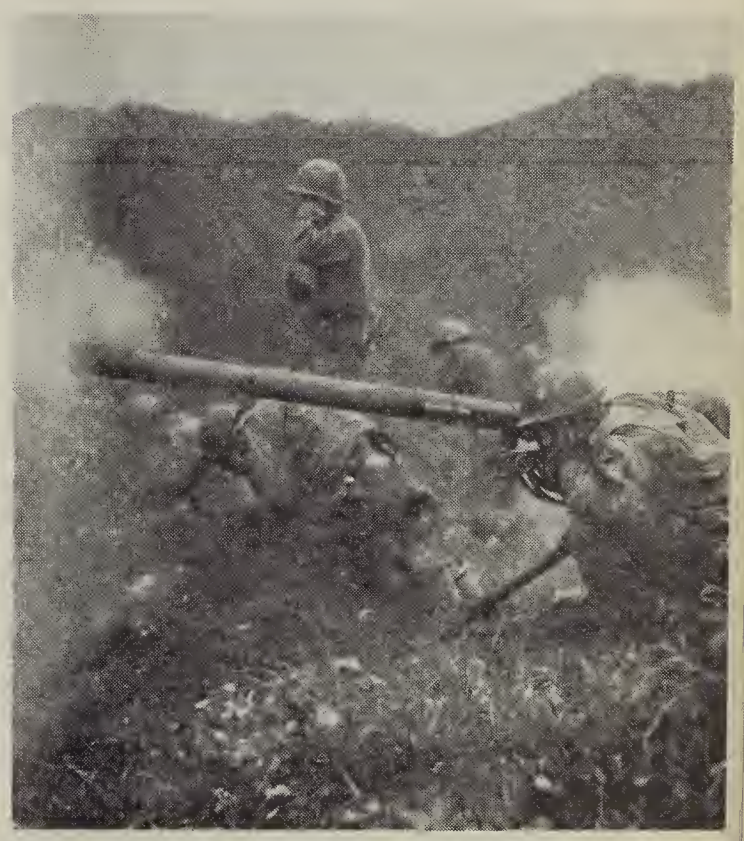


THE variety and number of our weapons permit us to pit fire power against man power. But the more weapons, the greater the problem of choosing the proper one to fire on a particular target. The selection of appropriate weapons and their effective employment is *fire support coordination*. Unfortunately, general misunderstanding of fire support coordination exists throughout the Army. If we can clarify its place and its job many of the difficulties that presently hamper effective fire support coordination should disappear.

Fire support is the fire delivered by supporting arms to assist infantry or armor in closing with and destroying the enemy. If the infantry or armored soldier faces the enemy with the help of well-planned, well-executed, coordinated fire power from artillery, mortars, rockets, warships and aircraft, he'll be getting fire support.

An axiom of fire support might be: *Always use the most effective weapon to do the job.* The purpose of fire support coordination is to put this axiom into effect—at the right time, in the right place, and in the right volume.

The infantryman can deliver fire with



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The increased number and variety of weapons demands that fire support practices be carefully coordinated so as to get the best from each weapon according to its capability

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his individual weapons—the rifle and grenade. He can get additional fire power from his organic machine guns, mortars, recoilless rifles, tanks, and flame throwers. He is further supported by fire power from three major sources—artillery, aircraft, and naval guns. To hit the target with the best weapon at the right time, to avoid duplication of effort, and to insure the safety of friendly troops, all supporting fires must be closely coordinated with other fires and with the maneuvers of ground-gaining units.

The officer who must select a weapon to attack a target must understand the mission and plan of maneuver of the force he supports. He must know what he is shooting at, and the capabilities and limitations of the weapons available to him. He must be familiar with the facilities and procedures used by supporting arms to engage a particular target.

He must consider and analyze many details: How will the attack of the target affect the mission of our forces? Is the target to be neutralized or destroyed? How accurate are the weapons? How long will it take for a specific weapon to fire on the target? How soon must the target be attacked? Is the means of delivery vulnerable to counterattack by the enemy? What is the weather? What about enemy aircraft? How accurately is the target located? What ammunition is available? Is the use of second- or third-best type of ammunition warranted? How much fire is needed during a specific period? How important is this target with respect to others? What will be the effect of suspending friendly artillery fire during an air strike? What measures are necessary to insure the safety of friendly forces? What communications can we use to control and coordinate this supporting fire?

There are many other details.

ARTILLERY fire has at times been placed on targets that mortars or machine guns could have destroyed or neutralized. Targets have been attacked with infantry weapons that should have been engaged by artillery. Aircraft have been used to attack targets within the range and capability of artillery. Artillery has been used futilely against positions that could have been destroyed or neutralized by aircraft.

There are times when artillery fire must be used although normally the fire of an infantry mortar or recoilless direct-fire weapon would do. This happens, for example, when the infantry weapon has to be left behind or when the difficulty of ammunition resupply to the lighter weapon justifies using artillery.

Evaluation must be made between the around-the-clock, all-weather firing capabilities of artillery, and attack by aircraft, which is relatively expensive and requires, in most cases, daylight and favorable weather conditions for close support. Yet, there are targets aircraft can destroy or neutralize better than artillery. Artillery fire on well-prepared bunker positions is not as effective as napalm, which, at present, is most efficiently delivered by airplanes. Artillery fire and fire from aircraft should be considered complementary rather than supplementary.

PRIMARY consideration should be given to the kind of supporting fire the supported commander asks for. But the capabilities and limitations of weapons must be appreciated and if the type requested is not available, another must be substituted. In our axiom of fire support, provision is included for using fire power that is ready at the time and place required. The rapid use of the weapon immediately available, even though not the most appropriate, may mean the difference between success and failure.

"The great weight and flexibility of fire power available to U. S. combat commanders can never be employed in sufficient quantity or speed . . . but every effort must be made to reach this optimum. Steel is cheaper than lives and much easier to obtain," so said the commander of the Eighth Army in Korea.

PRESENT deficiencies in fire support coordination can be attributed to lack of a well-established system whereby each arm is properly represented to the supported commander. Infantry-tank-artillery teamwork is largely accomplished by competent liaison personnel and the close association of all partners on the battlefield. Coordination of these arms has become second nature. Fire support coordination is still having growing pains.

Before World War II, artillery was almost the only supporting weapon for ground combat operations. Early in the war, tactical air support moved in and, in amphibious operations, naval gunfire support. By the end of the war it was plain that we needed some system to coordinate all of these agencies.

Through necessity several more or less effective methods of coordinating fire support were developed. Since 1945 (especially in Korea) progress has been made toward better coordination. Detailed techniques have been worked out and, most important of all, a system of coordinating fire support has been adopted and is now SOP.

Through necessity, naval and air units are learning to work in close accord with ground forces. The exchange of liaison and observer parties and the improvement of communications have been contributing factors. However, there are still problems of technique that must be solved. These problems will become greater with the advent of heavy rockets, guided missiles and atomic weapons as additional fire power.

THOUGH provisions have been made in Department of the Army publications for the coordination of fire support, many officers are as yet unfamiliar with this subject. The lack of knowledge can probably be attributed to the newness of the subject and to inadequate dissemination of information on its details. The Artillery School is currently preparing a special text covering the details of organization and functioning of fire support coordination. Portions of this are expected to be incorporated later in Department of the Army training publications.

Present official doctrine on the subject began when *Principles of Fire Support Coordination,* Training Circular 13, was published by the Department of the Army in December 1949. Its purpose was to "enunciate principles for the in-

"I am a paid-up member of the Association of the U. S. Army but I haven't received a copy of the COMBAT FORCES JOURNAL in more than eight months—and I've missed it. But the fault is my own—I neglected to inform you of my change in address. Please send the back issues to me at this address. I expect to be here for some time."
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tegration of all means of fire support . . ." This circular was based upon several years of study at The Artillery School and close coordination with other service schools. Its scope was general and, although it did help awaken the Army to the problems, it left many questions unanswered and details unexplained. Controversial points developed which were discussed and ironed out, and in August 1951 a new training circular (DA TC 23), *Coordination of Fire Support,* was published. It fills in many of the gaps and prescribes doctrine for the coordination of fire support available to units from the infantry and armored battalion up through army and army group.

The coordination of fire support is considered in Field Manuals 100-5 and 101-5, the command and staff bibles. FM 100-5 advises that "the best guarantee of success in the attack is effective cooperation among the troops in the attack echelon, the supporting artillery and combat aviation."

Battlefield accounts of fire support coordination are the best evidence of its effectiveness. A combat veteran of the Korean fighting reports: "There were times when we had as many as 262 sorties of aircraft delivering attacks for our division in one day. The artillery was shooting every round it could put in the tubes. By careful coordination, air strikes can take place without interfering with artillery fires. There really is a tremendous problem in coordination to have the maximum number of weapons firing without anyone [except the enemy] getting hurt."

Another observation: "The Fire Support Coordinator must be given much more consideration by every commander. Many supported commanders feel that they have got to make all decisions and work out all details. Actually, they don't have time to do it. But they don't utilize their available staffs to assist them to the utmost. When you have artillery commanders, liaison officers and infantry officers who realize the value of careful prior planning, you generally get good fire support. Too much fire support is requested and planned in an off-the-cuff manner; much is wasted because of inadequate planning. The lack of preplanning to set up on-call missions results in a great waste of ammunition."

Another remarked: "I think the main criticism of the average commander in Korea is his lack of understanding of the problems involved in organizing a fire plan and the necessity for being meticulous in planning and coordinating a fire plan. There is a prevailing attitude that, with the tremendous fire power available, all you need to do is shoot. We are not getting the maximum efficiency out of their fire support because of the lack of planning and coordination."

THE coordination of fire support is as much a command responsibility as is the maneuver of infantry, the exploitation by armor, and the massing of the artillery fires that support them. Every commander has subordinates responsible to him for the operations of each component of his command. The artillery officer has always been responsible for coordinating the supporting fires of ground weapons not organic to infantry and armor. The coordination of supporting fire from aircraft and naval guns is a natural extension of this responsibility.

The artillery officer is logically given the mission because of his dominant support role, his proximity to supported troops, and his knowledge of their requirements. This mission is not a new one to the artillery officer but is an inbred tradition of his arm.

Subject to the commander's approval, and assisted by representatives of the other fire support components, the artillery officer coordinates fire support agencies and facilities at each level of command. He is responsible that supporting fires are integrated with the fires of the organic weapons of supported units.

The planning and coordination of fire support is done at each echelon from regiment to corps through an agency called the Fire Support Coordination Center (FSCC), which is composed of the artillery commander as coordinator assisted by his S3, his S2, the G3- (S3-) Air of the supported echelon, the air liaison officer and naval gunfire liaison officer and the necessary communications facilities. It operates as a staff agency of the *supported commander.*

BELOW regimental level, although FSCCs as such are not established, fire support is coordinated on an informal basis among the supported commander, his staff, and the representatives of the available means of fire support.

At company level the artillery forward observer is ready to call for any type of supporting fire needed by the company commander. Not only is the fire power of his own artillery battalion immediately available at his call but, through his battalion, he can call for all available artillery of the division and corps. He can also call for fire from aircraft and, at times, for naval gunfire.

The FO can mark targets with smoke for air strikes. He can direct aircraft to the target by relaying his observations through the tactical air control party. The forward observer is not only the eyes of the artillery but he is also in a position to advise the company commander on where, when, and what type of fire should be used. The forward observer is, in a large measure, the fire support coordinator for the company commander.

At battalion level, coordination takes place informally between the battalion commander or his staff, the artillery liaison officer, the forward air controller, and, when he is present, the naval gunfire liaison officer. The artillery liaison officer usually assumes the position of fire support advisor (or coordinator) for the battalion commander. He works closely with the forward observers, supervising and coordinating their activities.

This system of coordination establishes a hub at each echelon for the careful and detailed planning necessary of fire support. It provides for the representation of various fire support agencies. For advice on supporting fires, the supported commander need go to only one individual, the Fire Support Coordinator. However, this does not mean other representatives cannot advise the commander concerning their own particular means of support.

The FSCC has facilities to determine and evaluate targets based upon reports received from its various information sources. It uses, as a basis for planning, the mission and objective of the attack. Fire missions are assigned after the FSCC determines what type and volume of fire is required to destroy or neutralize targets and what part each supporting arm will play in the operation. The details of delivery and control of fires for the attack are then coordinated for the force commander by the FSCC.

Representatives of Air, Navy, and Artillery cooperate with the Fire Support Coordinator. They work together as a team with the Fire Support Coordinator as the quarterback calling the signals for the commander.

INTERSERVICE rivalry is out of place on the battlefield, especially in the FSCC. Each service contributes its best effort to produce a winning team. The job of fire support coordination is to employ all fire power resources to get the best effect from each available weapon according to its special capabilities for the best possible support of the infantry and armored soldier.

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FRONT and CENTER

The Artillery School

Aircraft radio. Following laboratory tests of pilot models by Signal Corps and Air Force and production by the manufacturer, TAS expects to receive two or more sets of the new AN/ARC-22 radio which wraps up a radio communication-navigation system in one lightweight set. Specially designed for Army aircraft, the AN/ARC-22 provides short-range air-to-ground and air-to-air voice communication, and all of the radio aids to navigation now available in the VHF band. Its four bands—low-medium, VHF, UHF, and FM—can be selected at will.

Total weight is less than 50 pounds.

Advanced Course. TAS expects some 250 officers to enroll for its nine-month Artillery Officer's Advanced Course which opens on 2 September.

Extension Courses. TAS announces that Subcourse 30-4 (Artillery Survey) revised, is available for distribution and Subcourse 40-17FA (Self-propelled Artillery) revised, is being printed. Operation and use of recently developed matériel and signal equipment is included in this course.

Instrument flight proficiency. Pending instructions from D/A all Army aviators assigned TAS who have valid CAA instrument certificates will have to meet annual minimum requirements. The year is counted as the one immediately preceding the anniversary of the pilot's certificate.

Requirements: (1) Twenty hours of first pilot instrument time in weather instrument and/or hooded flight. Ten hours of this time must be flown within the preceding six months. (2) Fifteen hours instrument synthetic trainer time, six hours of which must be accomplished within the preceding six months. (3) Ten GCA (ground controlled approach) low approaches, five of which must be accomplished within the preceding six months. (4) Successful completion of an annual instrument flight test, conducted by instrument flight examiners designated by the Director, Department of Air Training, TAS.

The Infantry School

Soldier's load. A soldier should be a mobile fighting man and not a pack horse, so TIS is preparing a new training circular, "Command Responsibilities, Individual Soldier's Load." The circular sets forth principles for establishing load limitations for the soldier under varying conditions and enunciates current logistical policies. Rigid supply and equipment allowances have been abolished in favor of flexible allowances. Theater commanders can designate loads to be carried on particular missions and the balance of equipment and supplies provided for in T/O&E is kept in supply installations until needed. For example, soldiers ordered overseas used to carry 86 pounds of clothing and equipment; now they carry 42 pounds. When he gets overseas the soldier then draws what he needs to perform his duties.

RR platoon. A training circular on the proposed recoilless rifle platoon is in the works at TIS. It will cover mechanical training, crew drill, and normal weapon data on the 105mm recoilless rifle, plus a brief section on tactical employment.

Visual aids. Here's the latest dope on visual aids at TIS:

Under review—"Combat Patrols"

In production or completed but not distributed—

7-1710 Foot Marches
7-1717 Infantry Battalion in Defense, Part I
7-1718 Infantry Battalion in Defense, Part II
7-1743 Rifle Platoon in a Night Withdrawal
7-1746 Reinforced Infantry Battalion in Attack, Part II
17-1677 Regimental Tank Company in Attack
21-1741 Seeing in the Dark
Rifle Platoon in Attack of Built-Up Areas
Troop Movement by Motor
Combat Patrols

Scenarios being written—

"Defense of Rear Areas"
"Military Instruction"
"Leadership" (a 3-part film)
"Achievements and Traditions of the Army"

Recommended—A film bulletin on Mountain Training. Approved by Field Forces, the idea is awaiting D/A decision.

Television. TIS is exploring the possibilities of using television in its work. The Signal Corps has briefed representatives of TIS on TV and its mobile television system is at TIS to experiment in the tactical and training uses of TV.

MGM movie. A script writer for MGM visited TIS to get material for a movie "Take the High Ground." The picture is of basic infantry training designed to show the families of new soldiers just what happens to their men. Inevitably the conflict is between a sergeant and the recruits.

European city. It took some six weeks for the 100 members of the 78th Engineer Combat Battalion to build a model European village at Fort Benning to be used in making a new training film. Starting with 16 buildings already on the site, the crew put up five additional buildings and made it all look like a war-torn European village. The film, largest venture ever undertaken by the Signal Corps Photographic Center, was shot by a 50-man camera crew.

Equipment

Equipment reductions. Savings in infantry division equipment have been made possible through electrical accounting-machine calculations. Among the possible savings are a reduction of some 1,300 wrist compasses, 1,600 luminous markers, 700 whistles, 600 wire cutters, 500 goggles, 500 grenade launchers, 450 flashlights, and 400 five-gallon water bags. Biggest savings are five cargo trucks and one armored utility vehicle. Altogether some $600,000 worth of equipment has been cut from the infantry division in a recent revision, not yet approved by D/A.

Armor. The Director of Defense Mobilization announced that more than 300 M47 medium tanks are being delivered to the Army each month. Whether this rate can be maintained in the face of the loss of production during the steel strike won't be known until the state of the materials pipeline to various component manufacturers is revealed.

Shorts

Officer Candidates. D/A expects some 19,500 officer candidates (not including Wacs) to enter OCS during the present fiscal year and anticipates the commissioning of some 11,000 of them.

Irons in the Fire

/ision. Reports from the Army Medi- Research Laboratory at Fort Knox icate that contact lenses are superior egular eyeglasses for men in combat.

axes. If you are on active duty and your home at a profit you don't need pay income tax on the gain, provided use the money to buy a new home hin four years.

Pay records. Finance Corps has in- led microfilm equipment in its princi- disbursing offices in the U. S. to ord all individual pay records. Fac- ile of each serviceman's pay record l be placed in his 201 file.

Jump Pay. Even though a parachutist y qualify for jump pay by making ular jumps, he can't collect if he isn't gned to an airborne unit or officially ignated to perform a parachutist's duty, Comptroller General has ruled.

Manpower. The Department of De- se estimated the services will need 00,000 men the present fiscal year hey are to attain an over-all strength 3,700,000 and keep it. To get them Department anticipates it will get),000 through enlistment, call 70,000 erves to active duty, and draft 610,000 ough Selective Service.

Combat Pay. Officers and men on ive duty who are entitled to combat of $45 a month for service in Korea l be paid under the provisions of ulations now being prepared. Eligible sons who are no longer on active duty l submit claims for combat pay on ms to be distributed by the Depart- nt of Defense. Because eligibility for nbat pay must be determined from it records payment will be slow.

Selection Boards. A D/A selection ard will meet 1 Oct. to select officers promotion to permanent major gen- l and brigadier general. Considered promotion to permanent major gen- l will be all permanent brigadiers who l have served in that rank for more n one year by 1 Jan. 1953. Considered promotion to brigadier general will all permanent colonels with one year service as colonel by 1 January 1953. erested officers may correspond with Board by addressing their letters to e Adjutant General, Attention Army ection Board, Washington 25, D. C.

Ordnance Corps has given Willys-Overland a contract for the new model jeep. Changes [noted in our March issue] include a raised hood, lengthened body, and a new F-head 72-horsepower engine which will take the jeep two-thirds farther with 20 per cent more power than earlier models. It has larger springs, improved shock absorbers and plastic seats. To be known as the M38A1, the jeep has fenders streamlined for more effective guards against splash and mud.

Ordnance Corps completed a year of intensive study and service testing of its "primary wheeled vehicle" family to find out what savings could be made without hampering operations. Included in the study were trucks of the ¼, ¾, 2½ and 5 ton types. One of the resulting modifications provides for shallow fording (30 inches) in place of the former deep-water fording ability. By eliminating some of the waterproofing requirements, it is possible to substitute an open-type generator which costs less and is more efficient than sealed generators. One generator can now be used to fit all trucks from ¼-ton to 10-ton size. This eliminates nine generator assemblies and several hundred spare parts. Another innovation is special kits which permits field modifications for operations in specific terrain and climate conditions.

The XVIII Airborne Corps and the Eighteenth Air Force at Fort Bragg, N. C., are conducting a special exercise to test airborne and troop carrier procedures, with particular emphasis on heavy drop techniques and landing strip construction.

Medical Corps will begin construction on the first of seven new, permanent-type hospitals on stateside Army posts early next year. Replacing the old frame, cantonment type, the new buildings will be of reinforced concrete and those of more than 500-bed capacity will be nine stories in height. Wards for the critically ill, operating rooms and clinic facilities will be air-conditioned. The operating rooms will also be equipped to eliminate the danger of anesthetic explosions. Forts Benning, Bragg, Knox and Riley are scheduled for 500-bed buildings. Forts Belvoir and Monmouth will get 200-bed hospitals and Fort Dix will get the biggest of all, with an initial capacity of 750 beds.

Reo Motors, builders of the Army's 2½ ton "Eager Beaver" has announced the receipt of another big contract for additional vehicles and spare parts. In their third year of production on the Beaver, Reo claims to have the largest major contract received by the automotive industry since World War II.

The Navy has awarded a contract to the Electric Boat Company for a second atomic submarine. Though it will be of the same general design as the *Nautilis* now under construction, the nuclear power plant will be of a different design.

Air Force is testing a new machine gun which can fire up to 5,000 rounds per minute. It hopes that the new weapon can be used to beef-up the fire power of its heavy bombers.

Corps of Engineers is currently testing a new four-inch "portable pipeline" which can be laid from a truck at 15 miles per hour. Intended for delivery of gasoline and other liquid fuels to forward dispensing points, the pipelines were developed by the B. F. Goodrich Co. and the Corps of Engineers. One of these

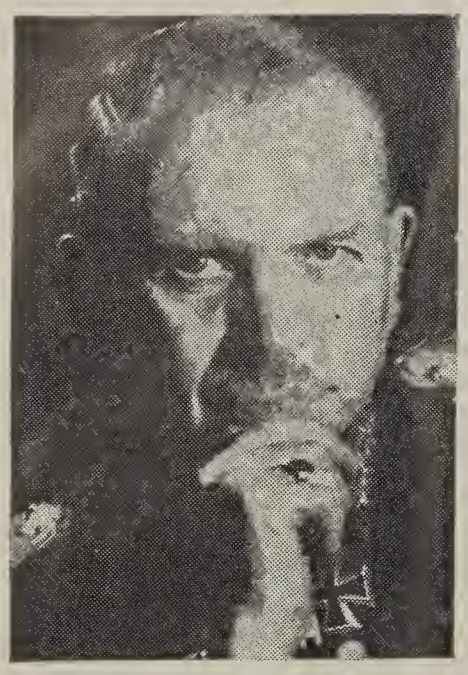


Portable pipeline

portable pipelines can transport 41 gallons of gasoline an hour with a daily capacity equaling that of 162 two-thousand-gallon gas trucks. The pipeline weighs less than one pound per foot and has a 500-pound burst pressure, making it the strongest hose for its weight ever built.

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★ BOOK REVIEWS ★

WAR BENEATH THE SEA

SUBMARINE. By Commander Edward L. Beach, USN. Henry Holt & Co. 301 Pages; $3.50.

In proportion to their numbers, probably no other service inflicted greater losses on the enemy in the Pacific nor did more to bring the war to a successful conclusion than the brave men who manned our submarines. Unfortunately, their story has not received the attention given to our ground, air and surface forces. During the war, their exploits were top secret and could not be published. Since the war several books have appeared, the best being Admiral Lockwood's *Sink 'em All* and *U. S. Submarine Operations in World War II*. Commander Beach's *Submarine* is the first book to be written about submarines in World War II by a man who fought in them.

Commander Beach was a "reluctant" submariner. As an ensign in 1941 he was assigned to an old four-stacker destroyer engaged in neutrality patrol. However, after Pearl Harbor a need for more men in the submarine service became acute and an internal draft was begun. Beach was one of the early "draftees." He quickly became an ardent submariner and apparently has never regretted the assignment.

While Admiral Lockwood's book did a good job outlining the war patrols of the various submarines in the Pacific and some of their problems, his was necessarily a somewhat detached account since he was serving behind a desk as the over-all commander. Commander Beach covers much of the same ground but has the advantage of having been an actual participant in the undersea warfare waged against the Japanese Navy. He does a fine job of imparting to the reader the spine-tingling excitement of undersea warfare. He does an excellent job of explaining the workings of a combat submarine so that they can be understood by the dumbest landlubber.

Beach describes the various operations of ten submarines in Pacific operations. There is a certain similarity in the accounts of these various patrols and it is difficult to single out any particular action for special mention although Beach's account of "Mush" Morton's patrols in the *Wahoo* certainly must rank among the most exciting. And most submariners would agree that Sam Dealey and his *Harder* made one of the finest records of all.

Submarine is a wholly absorbing story of undersea warfare, crammed full with hair-raising excitement, and a fine tribute to gallant men some of whom have watery graves in the deep Pacific.—R.F.C.

LAST DAYS OF BONAPARTE

NAPOLEON AT ST. HELENA: The Journals of General Bertrand, January-May, 1821. Deciphered and Annotated by Paul Fleuriot de Langle. Doubleday & Co., Inc. 318 Pages; Notes; Appendixes; $3.75.

General Henri-Gatien Bertrand served Napoleon faithfully and often brilliantly during his campaigns and in 1813 was appointed Grand Marshal of the Palace. He remained with Napoleon through his exile and until the Emperor's death in May 1821. An engineer, he was a man of precise and literal mind, and his diaries, in a sort of shorthand, were enormously detailed.

This book is a fragment of the diaries and covers the last months of the Emperor's life. Other parts are being deciphered and will add much to what is known of Napoleon's years at St. Helena, but this record of the final months—even without the record of the earlier years—is a splendid picture of the Emperor, and a dramatic account of his last illness. However improbable it seems that a day-by-day recording of any man's last illness could be dramatic, this chronicle of Napoleon's fight for life is fully as absorbing as the story of any of his battles.

Much of the book, of course, is in Napoleon's own words taken down verbatim by General Bertrand. The Emperor's comments, free of the restraint he imposed on himself as a public figure, range from discussions of the battles he fought to pungent and often brutally unfair remarks about former friends and enemies.

Napoleon at St. Helena as it stands is a fascinating and important fragment of history. The complete Bertrand diaries, when and if they become available, will certainly fill other important gaps in our knowledge of one of history's great commanders.—O. C. S.

HOMETOWNERS' PICTURE OF WAR

COMBAT BOOTS. By Bill Harr. Exposition Press. 232 Pages; $3.00.

Bill Harr was a 45th Infantry Division combat correspondent in World War II, which means that he wandered around looking for good stories about the troops to run in the division paper or send to a soldier's hometown newspaper. This book is a collection of his best yarns.

Harr evidently took his job seriously, although most of his stories are on the light side—for home consumption—and of little value as professional reading.

Combat Boots isn't an accurate picture of war, either; probably it isn't intended to be. But the men you meet in this book are the men with a narrow-escape or an interesting-experience story to tell. Their experiences were part of the picture, but mostly the few bright spots on a dark canvas.—O. C. S.

PROCEED WITH CAUTION

HANDBOOK OF COURT-MARTIAL LAW. By Conrad D. Philos. Revised Edition, 1951. Callaghan & Company. 627 Pages; $6.50.

This volume has been prepared for use as a companion volume to the 1951 *Manual for Courts-Martial,* and, following the paragraphs of the *Manual,* digests applicable

lecisions from JAG Bulletins, Board of Re-iew and Judicial Council decisions, and eports of cases decided in the federal ourts.

Insofar as the present compilation guides he reader to the mass of material in the (as yet) largely un-indexed decisions of Army Boards of Review prior to the Uni-orm Code, it has a certain utility. But his book abounds with so many inac-uracies that it must be used with extreme aution, even by a trained military lawyer; he line officer will use it at his peril.

If any reader of this review thinks the oregoing unduly critical, let him ponder few examples.

(1) Philos, p. 1: "Cases tried by such i.e., military] courts are expressly excepted rom the due process clause of the Fifth Amendment (336 U. S. 695) and are leemed excepted from the Sixth (317 U. 3. 39; 2 C.M.R. 52)."

336 U. S. 695 is *Wade* v. *Hunter*. That ase held that (p. 688) "under the cir-umstances shown, the Fifth Amendment's louble-jeopardy provision did not bar peti-ioner's trial before the second court-mar-ial." The Supreme Court's holding was ıot that the case was excepted from the Constitutional guaranty, but that the pro-ision had not been violated; and the Court aid nothing about the due process clause. The only portion of the Fifth Amend-nent expressly inapplicable to courts-mar-ial is the guaranty of indictment by a grand ury.

With respect to the Sixth Amendment, 317 U. S. 39 is *Ex parte Quirin*, the sabo-eur case, which dealt with a military com-nission and the laws of war rather than vith courts-martial and military law proper. 2 C.M.R. 52 is an Air Force holding which ndeed supports the text; but the Court of Claims specifically held a few years back hat the Sixth Amendment's guaranty of he right to counsel *was* applicable to ourts-martial, *Shapiro* v. *United States*, 107 C. Cls. 650, a decision which the Government did not appeal; and even Philos cites an Army ruling (p. 79) which ıppears to be in accord with the Court of Claims.

(2) Philos, p. 1: "Although accused n military law accordingly does not have ertain civilian rights, he receives in their lace many new safeguards, such as: right o make unsworn statement without cross-xamination; . . ."

The unsworn statement (MCM, 1949, ¶ 76) went out the window with the 1951 evisions; the only unsworn statement the ccused can make now comes after con-iction and before sentence, and that is trictly limited to matters in mitigation and xtenuation (MCM, 1951, par. 75*c* (2)).

(3) Philos, page 17: "warrant officer nay not act as trial counsel, assistant trial ounsel, defense counsel or assistant defense ounsel. Only commissioned officers may ct in this capacity. This rule applies to GCM and SCM. If the trial counsel or lefense counsel appointed does not fulfill his requirement, omission is tantamount

Off-Duty Reading

Dicky Birds, Wyliettes and a Governor's Travels

EVERY great industry that has tried men's strength and will has had its heroes, some of them real, some legendary. The railroads had Casey Jones and John Henry, the steel-driving man; the loggers had Paul Bunyan. The oil fields haven't been operating as long, but they have developed their own legends somewhere between truth and imagination. A young Oklahoman named Bob Duncan has gathered up these tales, arranged them so they tell the story of oil, and put them in a book called *The Dicky Bird Was Singing* (Rinehart, $3.00). The Dicky Bird is a fabulous feathered creature of cast iron with a voice like the squawk of a walking beam that needs oil, and it is said that once a man hears its voice he never leaves the oil fields until he dies. This book is the story of the men who listened to the Dicky Bird—the old-timers who gambled their money and often their lives on a single hole in the ground. It is the story of a way of life that is almost gone, and it is a good one.

PHILIP WYLIE is known to hundreds of thousands of readers as one of America's most original thinkers, a man whose savage indignation at the mess we make of our lives has alternately infuriated and appalled a generation of American readers. His *Generation of Vipers, Night Unto Night,* and *An Essay on Morals* have left his victims raw and bleeding. But this same man also turns out very neat whodunits, fishing yarns, and spy stories. They are considerably more readable and ingenious than most and always end happily. Perhaps Mr. Wylie writes these to torture himself. At any rate, his latest novelettes have now been published as *Three To Be Read* (Rinehart, $3.50). One is a fishing yarn, one is a spy story, and the third a very commendable cops-and-robbers yarn with a very neat twist.

WE were prepared to find Governor Thomas E. Dewey's *Journey to the Far Pacific* (Doubleday, $4.00) a rather stiff and forbidding report. We were delighted instead to find it highly informal, readable, and warmly personal. And, although Mr. Dewey bluntly criticizes some American policies and American officials in various parts of Asia, we can say honestly that this book is not primarily a political document. Governor Dewey visited Japan, Korea, Indonesia, Malaya, Indochina, Formosa, and other trouble spots. The people he talked to and the things he saw led him to the conclusion that the young leaders of Central Asia—and most of them are young—are sincerely and desperately trying to bring order out of chaos. He points up, too, the tragic fact that Asians understand us as little as we understand them, although the gulf can be bridged.

VERY few things about World War II in Italy were funny. *The Natives Are Friendly* by John F. Leeming (Dutton, $3.00) definitely is. John Leeming, then a British officer, was accompanying Air Marshal Boyd to Africa in 1940 when their plane crashed in Sicily. They were sent to the Italian PW Camp for senior officers. PW camps are ordinarily not very humorous places, but the combination of hysterical Italian administration and the eccentricities and escape attempts of some very senior British officers turned this one into something like a comic opera, though with the inevitable and deadly undertone of boredom that every prisoner of war has known. Captain Leeming was repatriated in 1943 after going through an elaborate half-feigned, half-real nervous breakdown, and his companions took off in all directions when Italy was knocked out of the war. Most of them eventually made it home without being picked up by the Germans, or this story might have had a less happy ending.

O.C.S.

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to complete failure to appoint and the error is fatal."

In *United States* v. *Goodson,* the U. S. Court of Military Appeals held that a special court-martial was not deprived of jurisdiction where the appointed trial counsel who acted in the case was a warrant officer (No. 424, decided April 14, 1952).

(4) Philos (pages 24-25) sets forth the *Hirshberg* case, 336 U. S. 210, which held that, after an honorable discharge issued in ignorance, followed by a reenlistment, the accused could not be tried for an offense committed during the first enlistment. He adds (page 25), "Note this result was reached even though Uniform Code had not been passed."

But Article 3 (a) of the Uniform Code, as the Committee reports show, was specifically designed to plug the hole left by the *Hirshberg* decision, and to insure that the *Hirshberg* result should not thereafter be reached.

(5) Philos, page 27: *"General prisoners.* Once jurisdiction attaches it continues. So if accused is convicted he remains amenable to trial by court-martial for offenses committed while in confinement. However, if he is a civilian, or a prisoner with DD executed, then he may only be tried for non-military offenses and cannot be tried for offenses such as desertion or AWOL."

Under old AW 2 (e), to be sure, "All persons under sentence adjudged by courts-martial" were subject to military law. But under Art. 2 (7) of the UCMJ, jurisdiction extends only to "All persons in custody of the armed forces serving a sentence imposed by a court-martial." That is to say, jurisdiction now depends on custody and not on status.

True, these are only samples, but since when did one have to eat the entire egg to judge of its quality? I repeat: This book must be used with extreme caution, and personnel untrained in military law use it at their peril.—COLONEL FREDERICK BERNAYS WIENER

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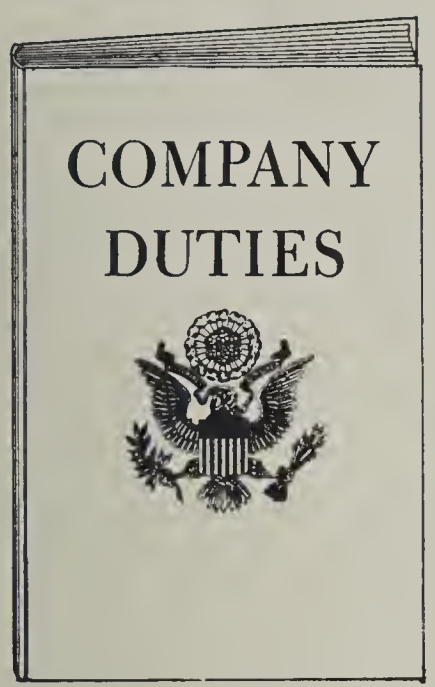
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ARMS AND MEN

Walter Millis

Notes on the Trade

LABOR DAY is by no means an inappropriate moment to consider one now rather large class of labor—most of it highly skilled and specialized—which has no union organization but which often works very hard indeed and to which this country owes a great deal.

One can find out something about it in the service magazines—a small group of modest periodicals which might profitably be read by a much wider audience than they usually achieve. The service magazines are the trade journals of war. Few Americans think of war as a trade, despite the fact that over three and a half million of their sons, brothers, fathers and cousins, plus a few sisters and aunts, are at present engaged full time in this occupation. Yet a trade it is, in some ways like any other.

In the more stately examples of these publications, such as "Ordnance" or "Aviation Week"—both produced more for the industry than the uniformed forces—or "Naval Institute Proceedings" one does not quite catch the flavor. But in such slimmer, if authoritative, magazines as "Combat Forces Journal," "Marine Corps Gazette," "Air Force," or "Armor" (successor to the old "Cavalry Journal") one comes up against something rather disturbingly real and impressive.

Here is the technical literature of war, the trade journals of men who have been, are, or may soon be confronting some life or death crisis on a Korean hillside or eight miles above an air training base. They are much like other journals of the kind—some personalities, a bit of humor, discussions of technical ideas and innovations, letters to the editor, suggestions as to how to meet shop problems and how to get ahead in one's profession. There is only one marked difference. The shop problem is apt to be of such a kind that if it is not mastered the workman will be dead within a few seconds; getting ahead in the profession often means physically advancing (and staying alive) over some mortar-swept terrain or getting a first shot into an enemy tank before the enemy has a chance to get one into yours. These are peculiar and rather awesome skills.

* * *

SUPPOSE YOURSELF, for example, in command of a tank platoon in Korea; a mine blows half the wheels and track supports off one side of one of your vehicles. What do you do? The answer, according to "Armor," is that you break the track, hook up a shortened section of it around the remaining wheels and tow the vehicle off. If "time is a major factor" (which means if you are being shot at) you use quarter-pound blocks of TNT to break the track. From "Combat Forces Journal's" notes and articles one can learn a lot about the way battles are actually fought—not the big, impersonal battles that show up as broad arrows on the newspaper war maps, but the company and platoon size scraps and firefights out of which the big campaigns are made. "Air Force" will discuss the problems and something of the technics of combat at 40,000 feet. And so on for all arms and services.

Modern combat in all its many forms is a highly skilled and technical as well as a deadly trade. It has its power tools—machine guns, artillery, vehicles—and its problems of management, discipline, worker psychology, like any other industry, but they are all grimly specialized against its own unique background of death and wounds. It is true that probably a large majority of those now wearing the uniform are unlikely to go through combat; but many have done so and many more are likely to in the coming years, while all must be trained to the business.

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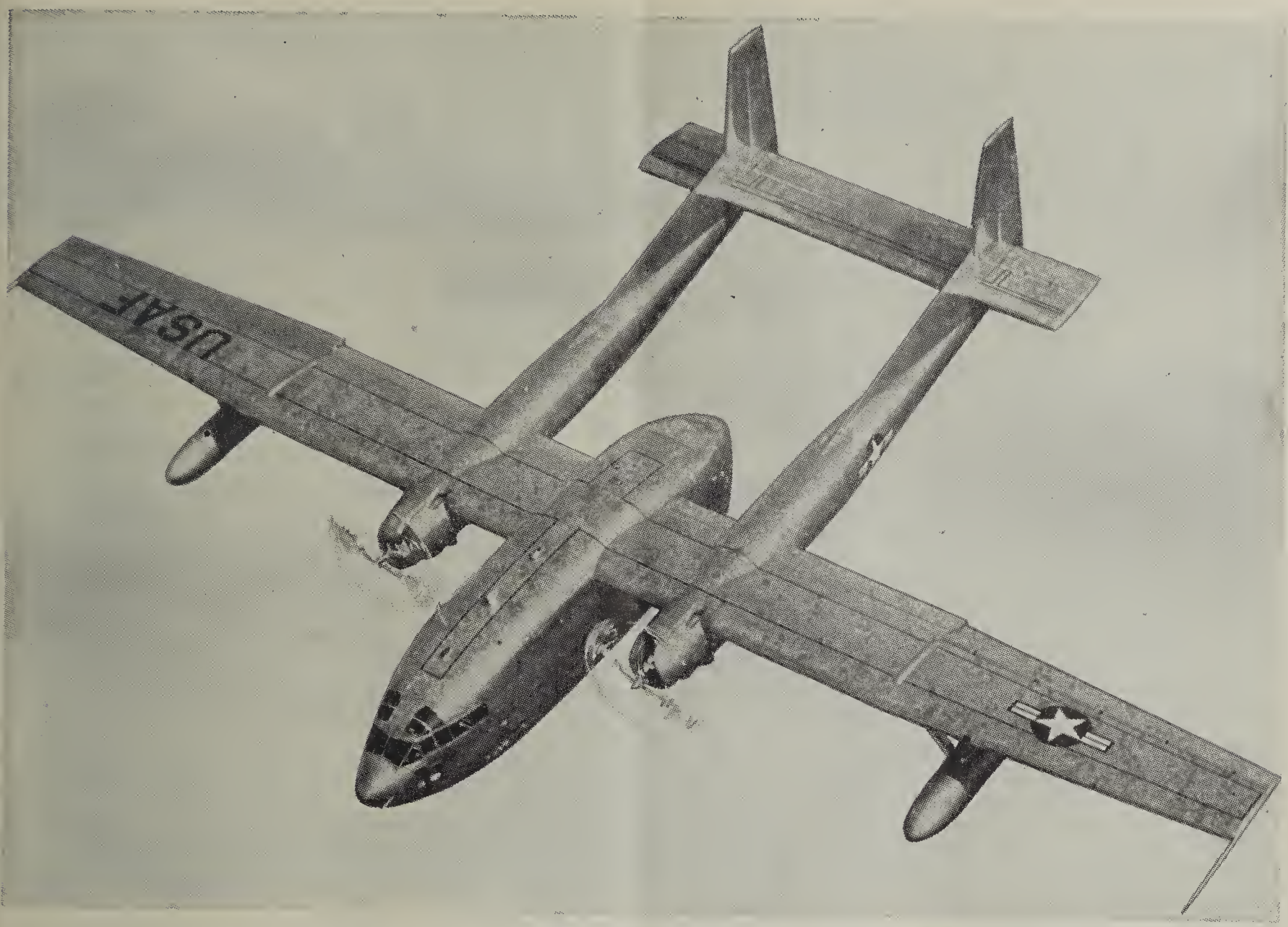
WE have to accept the trade of war as one of the normal occupations of our times for doubtless a long period to come. It seems certain, at least, that we must maintain large standing military forces indefinitely; and it is not unlikely that we shall have to be prepared to use them, in "little" wars from time to time, if their influence is to be effective in preventing the global war. This is a new situation for this country. It raises all kinds of questions as to obligations, duties, the allotment of risk and reward, the psychology of battle and the politics of power which are at best still only dimly seen. But one cannot read the service journals without sensing their presence in our affairs.

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New Member of the Association of the U. S. Army

Typical of the world-wide campaign for membership in the Association of the U. S. Army and readers for the COMBAT FORCES JOURNAL is this photo from Korea showing Capt. A. E. Stanchoe, the 25th Infantry Division's TI&E officer, receiving the membership card of the division commander, Brig. Gen. Samuel T. Williams. Actually this was a renewal, for General Williams has been a member of the Association of the U. S. Army and the former Infantry Association for some 30 years. In Korea the Eighth Army is conducting a vigorous and successful drive for members.

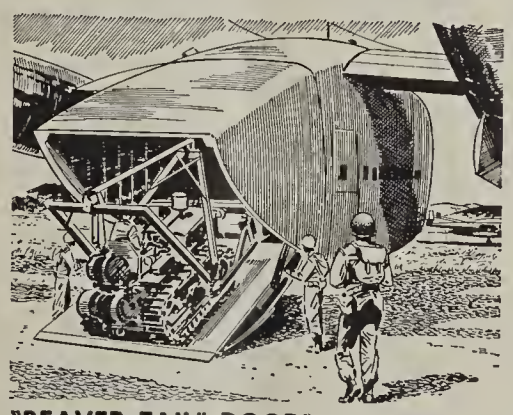




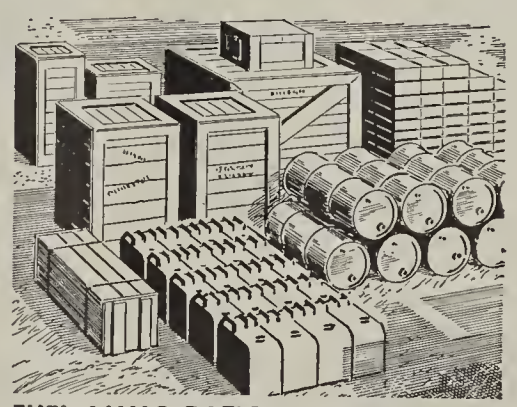
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UNITED STATES ARMY

COMBAT FORCES Journal

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Vol. 3, No. 3 — **October, 1952**

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To the Editors

Out of the Pencil Age

To the Editors:

Why does the artillery still solve meteorological messages by pencil arithmetic?

Seacoast artillery is dead, but surely someone remembers the range percentage correction board. This was a simple mechanical device for graphical determination of the net range effect of deviations from standard ballistic conditions.

I need not describe the board in detail. A few copies of the FM on coast artillery gunnery must survive in some military museum. In summary, the board contained a chart mounted on rollers on which were plotted groups of curves representing the range effects of various non-standard conditions. The ordinates of the chart were ranges and the abscissas were range effects. Using a combination of sliding pointers, the operator could, by visual interpolation and without computation, find the range correction for a given target in a few seconds. Little skill was required and no electronics or thousandth-inch tolerances were involved.

A faster means of computing corrections is needed because on the nights when we must keep our close-in defensive fires constantly corrected with the utmost refinement, our battalion is shooting at a rate of from two to six thousand rounds per night and our FDC is handling up to nine simultaneous missions. Our computers have little time to spare for paper work.

CAPT. J. B. LAWRENCE
Hq 171 FA Bn
APO 86, c/o PM
San Francisco, Calif.

MOS Correspondence Courses

To the Editors:

Why not correspondence courses for enlisted MOS training? As a Unit Instructor, ORC, I find this MOS training our greatest problem. As a former company commander, I found this problem as great.

The answer? Well, here's my proposal. Correspondence courses prepared and administered by the service schools. Difficult? Yes, but not impossible. A tremendous task? True, but unit competence is the goal of training and I believe that the final dance will be well worth the fee for the fiddler.

Since the Army Extension Course system trains second johns to lieutenant colonels and such commercial concerns as LaSalle or ICS train all sorts of trades and professions, the MOS extension course proposal must be feasible.

Granted, the service school can't mail out a howitzer or a bulldozer, but that can be handled by the proper approach.

The administrative MOSs are always critical and are too often staffed with improperly trained people, even in Regular units. Were extension courses available, I believe this could be remedied. Both



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We are tremendously proud of the Bird Dog's contribution to our nation's fighting power. And we hope you'll remember . . . it's a Cessna.

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Regulars and Reserves could be correspondence students.

Doubtless this would add quite a burden to the service schools, but I believe the final results would be as worth while as the present officer extension courses. And most of all, the Reserve and NG programs would have a means of training essential specialists that would give the taxpayer and the Army value received for money expended.

MAJ. ALEX HACKER
Naval Air Station
Corpus Christi, Tex.

Unit Loyalty

To the Editors:

In reading the July issue of the JOURNAL I was impressed by the number of articles and passages concerned with the morale of the combat soldier. One thing seems to be overlooked.

If you meet a soldier in a bar nowadays (forbid the thought) and ask him what outfit he is in, the answer will probably be, "The umpty umpth Division." There is one of the nubs of the situation. In the old Army, if you asked the same question you got a real answer, such as "H Company of the 23rd," "D Battery of the 15th," or "2d Medics."

A soldier can't see or feel a division. It's too big for him to really be a part of it. But a company or battery is different. The man knows the officers, he knows the first soldier, he can feel that he is a real, functioning, integral part of a team. When he falls out for a parade or inspection he can see his outfit. In combat he knows at most what his company is doing. Even the battalion is too big for him to keep up with.

Since the war I have met men out of the 9th Infantry who didn't know what the dragon stood for, men of the 15th Infantry that had no idea of the meaning of the Five River Pin, even men of the 7th Cavalry that didn't recognize Gary Owen.

Give back the pride of outfit, the feeling of team membership, the real *esprit de corps,* and morale in the field will reflect that spirit.

CWO JACK L. BOLING
1846 E. Commerce
San Antonio, Tex.

Tanker's Badge

To the Editors:

I propose the following draft be adopted by the Department of the Army:

AR 600-70
C 2

PERSONNEL BADGES

Changes }
No. 2 }

DEPARTMENT OF THE ARMY
Washington 25, D. C., ... 1952

AR 600-70, 24 September 1951, is changed as follows:

Combat Tank Crewman Badge (fig. . .)
—a. Eligibility requirements:

(1) An individual must be an officer or enlisted man, who subsequent to 6 December 1941, has satisfactor-



First Lieutenant
Carl H. Dodd
Medal of Honor



"USE MARCHING FIRE—and *follow me!*" Shouting this command, Lieutenant Carl Dodd struck out in advance of his platoon to lead the assault on Hill 256, near Subuk, Korea. During the fierce in-fighting that followed, he constantly inspired his men by his personal disregard of death. Once, alone, he wiped out a machine gun nest; another time, a mortar. After two furious days, Dodd's outnumbered, but spirited, force had won the vital hill.



"You were helping, too," says Lieutenant Dodd. "You and the millions of other citizens who have bought U.S. Defense Bonds. For your Bonds, *which keep America strong,* were behind the productive power that gave us the weapons we used.

"I hope you'll go on buying Bonds—always. Because your Bonds—and our bayonets—make an unbeatable combination for keeping safe the land that we all love!"

★ ★ ★

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Maintenance records on the L-21 bear out the dependability of this rugged plane's operation which comes from a design improved by the experience of millions of hours—in peace and combat—flown by more than 35,000 previous Pipers. It means reliability under conditions where availability at any time for any mission is so important.

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ily performed duty while assigned or attached to an armored unit as a crew member of a tank or other tracked vehicle during any period such unit was engaged in active ground combat.

(2) One combat tank crewman badge is authorized to be awarded to each individual for each separate war in which the requirements prescribed herein have been met.

c. Description:

(1) First award.—A polished silver Armor insignia on an oval green background .. inches in height and .. inches in length in front of an oak wreath of oxidized silver.

(2) Second award.—Same as (1) above with one silver star centered at the top of the badge between the points of the oak wreath.

(3) Third award.—Same as (1) above with two silver stars centered at the top of the badge between the points of the oak wreath.

(4) Fourth award.—Same as (1) above with three silver stars centered at the top of the badge between the points of the oak wreath.

The intent of this regulation is to permit the award to be made to individuals assigned to units containing tanks and to individuals who act as members of TACPs operating from tanks. Artillery FOs and those who work under fire as crew members of tank recovery vehicles are also intended to be included.

I'd like to point out that tankers have been waiting a long time for the implementation of the proposed regulation. I hope the matter can be expedited.

CAPT. STEPHEN K. PLUME, JR.
Hq. IX Corps
APO 264
c/o PM San Francisco, Calif.

'Arch General'

To the Editors:

General of the Army should be replaced as the title for a five-star rank in the Army. Experience has proven that it is confusing and inadequate. After some seven years of existence, five-star generals are today popularly indistinguishable from four-star generals.

Generals of the Army are so universally referred to as plain General that much of the original purpose in creation of the five-star rank has been lost. Five-star rank was created to place our military leaders on a parity with top military leaders of other nations who bear such titles as marshal, field marshal and generalissimo.

At the moment General Matthew B. Ridgway (a four-star full general who may soon become a five-star general, or "general of the army") will have a French marshal and a British field marshal under his command in the Atlantic Pact forces. Both the marshal and field marshal, at least in the popular mind, will outrank the supreme commander.

General of the Army is confusing in that it implies that there is only one "general of the army," whereas several officers may bear the title. Also, all five ranks of general are generals in the army or "generals of the army."

The title field marshal, marshal or generalissimo, already established in usage by other nations, should be utilized for United States officers of five-star rank—or some new American title should be established for the purpose. Arch, First, High, Chief, Grand, or Supreme General might serve the purpose.

Field marshal or marshal would serve well. A story has it that one of these was first considered when five-star rank was inaugurated, but discarded because George C. Marshall was slated for the rank and it was felt that "Field Marshal Marshall" would have an objectionably odd sound.

DANIEL FRANCIS CLANCY
Springfield, Ohio

Small Arms and Such

To the Editors:

Saw my letter on weapons in the June issue. Either my handwriting doesn't translate well or something happened at your end. What I meant to say is that the 9mm Parabellum is a standard caliber in Europe for submachine guns. The French use a 7.65mm and the Red nations use 7.62mm pistol caliber.

One of the many reasons the M1 is hard to shoot accurately is the mounting of the front sight on the gas cylinder. The T-44 and T-47 have a better setup. Also, taking the rifle out of the stock to clean creates possible trouble. If the gas system was above the barrel like the Soviet Tokarev M1940, it could be left in place.

Apropos of that sergeant who writes that he doesn't want any more rifle inspections, he is barking down the wrong hole as it were. Until Uncle shoots all of his corrosive primers away, rifles had better be checked at least for a few days after use. They leave such purty whiskers on the rifling.

WO JOHN P. CONLON
Camp Polk, La.

UMT

To the Editors:

While stationed at Fort Jackson, S. C., in 1947, I happened to know personally several of the graduates from the UMT experiment at Fort Knox. They had received six months of "training"—they had their own courts-martial, they had lectures from the chaplain, they had *Army Talks,* and they learned neatness and citizenship. And they knew the M1 rifle. But they knew almost nothing about any other infantry weapon!

As a test, I asked them all this question: "When your BAR fails to fire, what is the immediate corrective action?" Not one of them knew the answer. Yet that simple answer might save lives some day when the going gets rough.

This type of UMT would be a waste of time and money and would not contribute to national preparedness.

JOHN S. CARROLL
Denver, Colo.

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'Flying Carry-All' for the Army Field Forces — Increasing numbers of Sikorsky H-19's are coming off production lines in the traditional olive-drab colors of the U. S. Army. They will be vital components of the Army's newly organized Helicopter Transport Companies which have the important assignment of giving logistic and tactical support for the ground forces.

In Army service, helicopters will be used for personnel and cargo transport, observation and reconnaissance, wire laying, courier service, evacuation of the wounded and all the other duties for which they have proved so indispensable in Korea.

Adoption of the Sikorsky H-19 by the Army has made its use unanimous with America's military services. Other modifications of this basic type helicopter have already been established as standard and important items of equipment with the Air Force, the Navy, the Marine Corps and the Coast Guard.

SIKORSKY AIRCRAFT

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ONE OF THE FOUR DIVISIONS OF UNITED AIRCRAFT CORPORATION

Comment for the Combat Forces

Machines and Men

IN one of his books some years ago, General J. F. C. Fuller observed that the stalemate of the First World War was made possible because soldiers and civilians alike didn't understand the proper use of the internal combustion engine and wireless telegraphy in war. It wasn't until the closing days of that war that the true use of them began to be discerned, Fuller wrote (if we remember him correctly), and it wasn't until 1939-40 when the *Stuka-Panzer* teams appeared that the impact of the Age of Oil on warfare came to full maturity.

We recall that comment now because today, more than three-quarters of a century since Daimler built his automobile and a half-century since Marconi sent a wireless message, the use of these two devices by our military forces is being criticized. It isn't that the critics are against motor vehicles and radios and think the Army should go back to mule carts and wigwagging from high hills. Not at all. They just think or seem to think that it is a hell of a note that the Army has soldiers in uniform who spend their time operating these machines instead of firing shot and shell at the enemy.

If the full effect of this kind of thinking could bring about the complete disappearance of typewriters, IBM machines and other such millstones, the net gain might be worthwhile. But there is, as you well know, no hope of that. The bookkeepers and their machines are sacrosanct and even if the rest of the Army went back to the days of Mad Anthony Wayne, the spectacle of a machine-records unit trailing a mounted rifle company through a Korean valley would be something to see.

Of course this wouldn't satisfy the critics. But there's another solution that might: the modification of every machine in the Army to shoot bullets. It could be done. Is there any reason why a machine gun couldn't be fitted to a jeep engine so as to fire at every stroke of a cylinder? Or for a walkie-talkie to be fitted with a fast-firing carbine-type weapon? Or even for a typewriter to spew forth bullets? This would require the rewriting of the old adage that words are more lethal than bullets. But that can be taken care of by quip-makers armed with a Joe Miller joke book that backfires (no development necessary).

Seriously, the critics who want more shooters and fewer specialists are flying in the face of history. In the three-quarters of a century preceding 1945 —when the scientists came forth with atomic energy—the changing methods of war were caused not by radically new weapons or explosives but by new machines that themselves didn't shoot a single bullet or shell or explode a single bomb. The motor vehicle (including the tank), the airplane (including the heavy bomber), and the radio (including radar and the VT fuze) multiplied the mobility and velocity of warfare tremendously. These inventions and developments made it possible for one man at the trigger and ten to a hundred men beside and behind him to place more fire power faster on the most critical targets than a hundred or a thousand or more men had been able to place before.

The question the critics should ask is not whether we have too many specialists in uniform but whether we have enough specialists assigned to the right units. And whether we are giving our specialists the right kind of training. And whether we are thinking enough about new ways to use these specialists.

And similar questions should be asked about the machines these specialists operate. Have we enough of them? Have we organized so as to get the most out of them at the place and time that is best for us? How can they be improved? What other new machines do we need that scientists and engineers can produce?

These are important questions. But it is still true that wars end when riflemen, machine gunners, tankers and artillerymen overcome the enemy's riflemen, machine gunners, tankers and artillerymen. But it is further true that in 1952 the riflemen, the machine gunners, the tankers and the artillerymen would never get to that final battlefield without the full use of the internal combustion engine and wireless telegraph—in all of their manifestations—by every echelon of the ground, sea and air forces.

Years in Grade

THE unfairness of the "five-years-in-grade" law to some 900 permanent colonels (some of whom are temporary general officers) and 50 or more generals has been somewhat alleviated by the Executive Order of the Commander in Chief which makes it possible for the Army to retain 60 per cent of these officers during the national emergency. But it is plain that the law needs revision. A law that penalizes an individual and deprives the Government of the services of men of proven capacity is not right at any time and is particularly inefficient at a time when the Army has the most intricate and difficult missions imaginable assigned to it.

Further, it wasn't what the officers bargained for when they entered the service as young men.

When these officers were first commissioned as lieutenants, they fully expected to serve on active duty until age sixty-four. Or else to be freely permitted to retire at the end of thirty years or more of service if they so requested. Or, possibly, to be retired for physical dis-

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ability; or die from wounds, disease or accident before their careers were done.

They did not dream that Congress would first cut their service four years short—then cut it still further by a five-years-in-grade law. And they did not dream that their last years of service would turn out to be (by operation of law) a period of extreme uncertainty during which they have been made to feel very distinctly that failure to become generals has tended to brand them officially as failures.

There never has been (and never will be) a time when more than one regular colonel in five could be promoted. In the old Army and in the new, many highly honorable and truly "superior" careers have ended with retirement as colonel.

The one thing that has helped save a thousand senior officers from extremely low morale has been the sheer absurdity of the laws creating such extreme uncertainty for them in their closing service years. One law has said (for several years, now) that they must go out after five years as colonels. But another law has said that they can't draw any retired pay unless retired for disability.

The Navy has the best way. A man qualified to be an admiral, but who doesn't get that promotion in time, is *retired* as an admiral. Contrast this with our own "system."

Let's soon spell out clearly again for the junior officer what his career will be, with or without stars. And this *normal* career should be expressed in the form of a law of Congress.

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THE careers of our younger officers are important too. But we don't think any of our younger officers should feel that the retention of 600 or so of the older officers will irreparably delay their chances for promotion. Indeed the principle that would be established if the thousand "five-years-in-grade" officers were let out now could work to the disadvantage of younger officers in years to come. It might happen to them at forty-five instead of at fifty-five.

Nor is anything gained by older officers insisting that the young bucks are doing all right. To snort that "I was still a first lieutenant after seventeen years of service while kids of ten years' service are lieutenant colonels today," doesn't say a thing except that maybe the Government was right in keeping you a first lieutenant that long. Which of course is absurd. Your generation was unlucky. The younger generation can only be called lucky by comparison if you want to forget that it was that generation that got the heavy casualties between 1941-45.

And how well are the youngsters doing, anyway? Consider the cost of living today and fifteen years ago. Look at their contemporaries. Fortunately we can, for John Hersey in *Harper's* has given us a valuable report on the status of the Yale Class of 1936. He reports that the average member of the class had an income before taxes from all sources in 1951 of $19,226.41, life savings of $71,212.74, and $41,293.28 worth of life insurance. As Mr. Hersey observes, averages have to be watched in this connection, but surely the averages of the Yale Class of 1936 can safely be compared with the averages of the West Point Class of the same year. So compare them and see what you get. A few of the Class of 1936 USMA may be generals (temporary), but more of them are colonels (temporary), and still more, probably, are lieutenant colonels (temporary). Most of them are majors (permanent).

The Secretary of the Army is a relative youngster himself. And he believes that the young and vigorous are needed if the Army's leadership is to be kept healthy. He spoke of it at the American Legion convention in September, remarking that the "adoption of a special provision that permits promotion of five per cent of outstanding officers for special achievement irrespective of time in grade does much to emphasize incentive." So it does. But as you know there is a bit of a catch in that five per cent business. The word "permits" is critical. There is no guarantee in it that you'll get promoted if you are a hard-working genius with a flair for capturing the best possible efficiency reports. The regulation just makes it possible for such geniuses to be considered for promotion before they normally would be.

Meanwhile our advice for the Class of 1936 USMA is not to worry about that Yale '36 average of $19,226.41. It's a little phony on analysis. The average Yaleman "earned"—so Hersey put it—$11,329.01, "took in $5,189.30 in unearned income; his wife earned $186.10; and she had unearned income of $2,522.20." So if you, in addition to your service pay and allowances, have $5,000 worth of unearned income every year, if your wife earns $180 a year and has unearned income of $2,500, you are doing all right. And even though you can't chalk up any of these extra windfalls, you're still no failure in our book.

On Your Toes

FOR early September the Virginia countryside is unusually cool tonight and so the crackling little blaze in the fireplace is very comfortable, as is the big chair, and as are our toes freed of confining leather. . . .

On page 37 of this issue three air lift operations of the cold war are briefly reviewed from the standpoint of the soldier interested in the use of air power to transport troops and supplies. The three operations are significant because each was more than a minor victory in the cold war, and in each, air transportation was the vital factor.

One of the three lifts was that of British troops to the Suez Canal Zone a year ago. In a recent issue of the British *Army Quarterly* this operation was described at some length with the author at one point observing that "a great change has occurred during the last twelve months, and a unit commander in the Middle East in 1952 must expect, and does expect, to be called on to carry out operations at very short notice involving moves by air. It has become second nature."

He was referring to standard British infantry regiments and not to airborne troops. And the comment is, or should be, applicable to our own Army today. Certainly travel by air by individual soldiers is common. And certainly many units have moved by air to maneuvers and even to Europe and the Far East and to other outposts on the perimeter of the free world.

But there is in that comment of the British writer more, much more, than the mere acceptance of the existence and possibility of movement by air. There is in it the suggestion that commanders today must anticipate the possibility of unexpected orders to move and must keep their commands prepared psychologically as well as physically for them.

This living "light" in anticipation of a sudden change is tough on the man who likes to toast his toes by his home fire at the end of a long day. But it can be done. Indeed you can learn to live that kind of a life and like it. So we have been told.

. . . We push our toes towards the warming fire and give ourself the luxury of a long and lazy stretch. A yawn is hardly stifled by the dull throb of an airliner's motors overhead, coming in or leaving the Washington National Airport. Something must be done one of these days about our own psychological adaptiveness to change.

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The Load of the Indiv



Tactics, logistics, equipment production and training are all involved In the load of the Doughboy. Here's what Army Field Forces — more explicitly AFF Board No. 3 — is doing about the load the soldier carries.

IMPROVEMENT of battle efficiency by simplifying the ways and means of carrying the soldier's load, thus easing his total exertion, has been a continuing objective of military leaders. The troops of Hannibal and Caesar forced enslaved peoples to "tote" their loads. Joan of Arc and the British battle chieftains had carriers bring loads of extra arrows and arrowheads into the fight.

In World War II, when our own forces spent much time in pursuit and amphibious assault, the soldier's load truly went under the microscope of the logistic and command study and research. In Korea, despite much discussion after World War II, solutions were generally local improvisations. There we have had a combination of mountain warfare with winter circumstances alternating with almost the hot-dry circumstance of the desert. During our withdrawals, we accused ourselves of being top-heavy with equipment.

The reports of abandoned supplies and the complaints against present load-carrying equipment indicate that no satisfactory solution has been found. The quest for it continues.

Everybody who has noted this agrees that the load must be lightened. But just how much should a soldier carry?

The most common rule of thumb has long been "one-third the body weight." In 1950, Army Field Forces Board No. 3 recommended:

(1) "That forty pounds be adopted as the optimum combat load to be carried by the soldier employed under the most trying conditions, *i.e.*, the rifleman."

(2) "That forty-five pounds be adopted as the optimum combat load to be carried by soldiers other than riflemen, whose combat functions normally require movement on foot."

(3) "That fifty-five pounds be adopted as the optimum load to be carried by any soldier when march conditions prevail."

The Chief, Army Field Forces, approved as doctrine these 45-pound combat and 55-pound marching loads. Although no specific doctrine was set up for the rifleman as such, his 45-pound load can readily be reduced to 40 pounds by cutting down his ammunition. These are the first actual and practical yardsticks for the soldier's load. They affect not only the man who carries it, but they control and influence tactical and logistical doctrine, training methods, and the development of every item which must be man-carried on the battlefield. The problem is much more complicated than it seems on the surface.

COMBAT tactics dictate that every infantryman have his own individual weapon; and that crew-served weapons of the infantry battalion be man-portable. Operators of crew-served weapons already heavily loaded, must also carry an individual weapon.

Mobility of the soldier is vital to tactical mobility. Every additional pound he carries cuts down his mobility and the tactical mobility of his unit.

The logistical aspect of the problem includes resupply methods and use of transportation, and these things, more than anything else, dictate the amount of supplies and equipment the soldier must carry. This aspect becomes most complicated in areas impassable to motor vehicles where everything must either be man- or animal-carried.

A man wearing no clothing and carrying nothing has the ideal load. But any solution of the load-carrying problem must be a compromise between what the individual must carry to do his job and the ideal. The solution must be one

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dual Soldier

Major Richard T. Mathews



Front and rear view of a soldier equipped with the newly developed carrying equipment and field trousers. This man is carrying battle, existence and full field load.

that will not interfere with breathing or blood flow or the capacity of the body to dissipate heat. The load must create the least possible body pressure, pain and fatigue.

During training the soldier must be prepared both physically and mentally to carry his necessary combat load. Discipline is essential. Only through a combination of mental and physical conditioning can the willful throwing away of supplies and equipment be eliminated. Commanders must see to it that training isn't designed to condition a man to carry larger and larger loads as his condition improves, but rather to carry the minimum essential loads with less and less adverse effect on his operating efficiency.

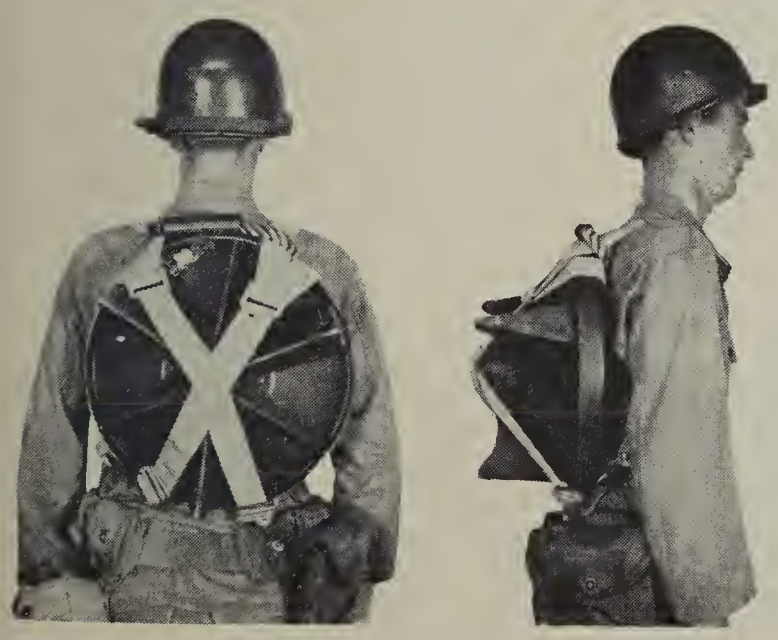
Development

A chief objective in development is to cut down the weight of man-carried equipment. This is a continuing project. Suitable lightweight materials must be obtained for it. The difficulty of coming to a skillful compromise between the soldier's battlefield needs and his ability to carry the load makes it absolutely necessary to give the highest priority to cutting the weight of the equipment he must carry.

The means by which the soldier carries his load must be designed so that the weight is transmitted to the ground through the bone structure, thus eliminating local muscular and other strains.

The center of gravity of the load must closely coincide with that of his body, so he can maintain his normal posture and free gait. All pressure on the chest should be eliminated, whether from parts of the load or the load-carrying equipment itself.

There must also be the least possible effect on the regulation of his body temperature and minimum interference with his capacity to do the jobs he must do.



The 7-foot web universal carrying strap can be used with crew-served weapons. Here it is used with the inner ring of the baseplate of the 81mm mortar.

IN July 1951, Army Field Forces Board No. 3 undertook a project to study this problem and develop military characteristics for improved individual load-carrying equipment. The Board found that a final solution narrowed down into two main coordinated efforts: (1) Cutting down the soldier's load by eliminating every nonessential item and reducing the weight of the essentials; and (2) Improving the means of carrying the load.

It was recognized that the problem was most acute for the front-line infantryman, both in the loads carried and means of carrying. If a solution could be found for *him*, then any special requirements for other types of units could be readily resolved.

The 45-pound combat load and the 55-pound marching load could be further broken down into these items:

Habitual Clothing. The clothing worn so naturally that the wearer is not conscious of its weight. The weight of this was considered as exclusive of the 45-55 pound maximum.

Existence Load. These are items common to the load of all combat soldiers, which protect or maintain the individual. The following minimum existence load was proposed:

Medical items, toilet articles, socks and spoon	.70 pounds
Bayonet-knife[1]	.90
Ground sheet, sleeping and rain gear (poncho)	2.00
Rations (⅓ "C")	2.20
Helmet	3.00
Water (canteen, cup and cover)	3.30
Suspenders, combat pack, belt, and 2 ammunition pouches[2]	3.50
Intrenching tool w/carrier	3.50
Pistol and ammunition	4.00
or	
Carbine and ammunition	8.00

[1]A previous project of Board No. 3 recommended that the bayonet-knife be modified to fit the M1 rifle and issued in lieu of the bayonet, M1.

[2]Items developed by Board No. 3 during the conduct of this study. They are discussed later in this article.

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The universal carrying strap becomes a machine-gun sling.

TOTALS:

Men armed with rifle[3]	19.10
Men armed with pistol	23.10
Men armed with carbine	27.10

Battle Load. This consists of a rifle or crew-served weapon and their ammunition, and unit equipment which varies with the soldier according to his assignment. In the main, these are the man's contribution to his small fighting unit, as contrasted with the existence items which he carries to support himself.

Full Field Load. These are certain additional existence items that a man may need to increase his environmental protection or comfort, when he is on the march to or from combat—or when he is otherwise in the field but not actively engaged in combat. These include such things as sleeping bag and extra clothing.

STUDY of the functional loads showed that to meet the maximum 45-pound combat load, we must have an existence load of 20 pounds, and a battle load of 25 pounds.

These weights were recommended for adoption as research and development guides, to be applied in the design of equipment as well as controls for use in establishing T/O&Es. The full field load is of lesser importance, since it can be regulated to insure that, added to one or both of the other loads, the total load does not exceed 55 pounds.

Studies of infantry battalion loads show that it is probably feasible to cut the minimum existence load to 20 pounds. This limitation, of course, would be based upon further research and development. The weight of such items as the canteen and cup, intrenching tool, rations, helmet and side arms could probably be reduced.

Most of the loads in a rifle company fall within the 25-pound maximum battle load, when only the minimum essential weapons, ammunition and equipment are carried. When current developmental projects are completed, practically every rifle company load will fall within this limit. Notable exceptions are the ammunition loads for the light machine gun and the 60mm mortar. These cannot be brought within the 25-pound limit unless radical changes are made in the packaging of ammunition.

The weights of crew-served weapons, ammunition and equipment of the heavy weapons company are greater than those of the rifle company and obviously cannot be carried within the 25-pound battle load limit. Neither the 105mm rifle nor its ammunition is man-portable, and the 75mm rifle and its ammunition are only semi-man-portable. This heavy-weapons company problem, though serious, is not as acute as that of the rifle company, where hand-carry of weapons and ammunition is normal in all displacements even when the terrain permits use of vehicles.

IT is apparent then that, even when only the minimum essential items are carried, many infantry battalion loads cannot come within the maximum 45-pound combat load limit. And besides, the requirements for sustained combat, special operations, extremes of terrain and weather, and arctic warfare, further complicate the problem. In its study, Board No. 3 considered that reduction of the load, to meet the established doctrine, requires a considered combination of these measures:

(1) The elimination of nonessential items;
(2) Use of lighter, improved equipment;
(3) Increased strength of weapons teams;
(4) Supplemental battlefield transport.

Items and Accessories

Battlefield transport must be able to reach the rifle soldier in the front lines and often go with him in battlefield displacements. Conventional combat vehicles do not furnish a complete solution. It is even doubtful whether any single means of transport can be devised to be satisfactory in all circumstances. The Board concluded that from the following group an integrated family of battlefield burden carriers could be developed.



The new lightweight machine-gun tripod can be handily carried by using the universal carrying strap.

Infantry Battlefield Burden Carrier. A small, platform type, unconventional, powered, man-portable vehicle, intended to accompany the infantry soldier across country in combat in temperate zone operations and carry squad loads, particularly crew-served weapons and ammunition. It is designed to move at walking speeds, in the former role of the mule. Military characteristics have been approved and the vehicle is currently under development. If the military characteristics can be met, this vehicle should alleviate the carrying problem in nonmountainous terrain in the temperate zones. An over-snow version of such a vehicle warrants consideration for arctic use.

[3]The rifle and rifle ammunition are considered a part of the battle load and the weights of these items are not included in the existence load.

Helicopter. The infantry has welcomed the increasing availability of Army cargo helicopters in handling its logistical problems. More study is necessary to decide whether the military characteristics of cargo helicopters should be changed to provide for close support of the infantry soldier in front lines. A cargo version of a one-man "hoppicopter," capable of lifting loads for short distances at treetop level, has possibilities.

Hand Carts. Hand carts have been used by many armies for transporting loads too heavy to carry by hand. In World War II, airborne units had varied success with an ammunition cart towed by a motor scooter in the assault phase of airborne operations. This scooter, equipped with small doughnut-shaped tires and a very low gear, had considerable cross-country mobility. An extremely light, high-wheeled, rickshaw type, collapsible cart, capable of being transported outside of the cargo compartment of a combat vehicle, warrants investigation. Such a cart could consist of two readily demountable drawing bars. It should carry loads up to 250 pounds secured to the framework of the cart.

Sleds. Man-towed sleds have been used in arctic snow-covered terrain by several armies. Currently our Army has 100- and 200-pound capacity sleds. Field tests are required to determine the practicability of man-towed sleds loaded with combat impedimenta of rifle and heavy weapons companies. The bulk and weight of existence equipment required in the arctic dictates the need for special means of transportation.

Mule. The special capabilities of the mule in certain kinds of terrain warrant its retention for such special roles.

Man Transport. Natives will act as human carriers in many areas of the world where the U.S. Army is likely to fight. Techniques, cadres, and pack equipment must be developed to facilitate the organization and employment of this labor as supplemental transport, for front-line infantry loads.

Practical Load-Carrying Equipment

In studying the problem of improving the means used to carry the load, every conceivable source of ideas for equipment with optimum military and physiological characteristics was explored. The Quartermaster General reviewed all patents of individual load-carrying equipment on file at the U.S. Patent Office and furnished Board No. 3 with copies of those meriting consideration. The Infantry School canvassed its staff and faculty and furnished numerous ideas and suggestions. Combat veterans, both from World War II and Korea, were interviewed. Reports covering previous studies and tests on individual load-carrying equipment were examined. Items of French, German, and Japanese equipment were evaluated. Complete sets of British and Canadian experimental equipment presently undergoing tests in those countries, were received and evaluated. The ideas from these sources were sifted, evaluated, combined and consolidated to arrive at desirable features in individual items and a collective group of items which would form an individual load-carrying system.

Concurrently and in conjunction with the evaluation process, an expert equipment designer from the Jeffersonville Quartermaster Depot worked with Board No. 3 in fabricating protoype models of equipment for testing. These models were first tested and evaluated informally to determine any deficiencies or desired modifications. Items were then tested formally, with all results recorded, in comparison with each other and with standard equipment. Formal tests alone involved marching more than 750 man-miles over a variety of terrain, with test soldiers simulating both combat and marching conditions.

FROM this process of evaluation and testing evolved a set of equipment which appears far superior to the standard equipment. Based on prototype models, military characteristics were prepared with recommendations that 1,000 sets be fabricated for service and troop testing. This testing, under actual field and combat conditions, will determine the true merits of the equipment.

Briefly the proposed equipment consists of the following:

Suspenders. The shoulder padding is improved by replacing the 2-inch pads with 3-inch pads. The adjustment features are simplified to allow quick and easy adjustment and eliminate annoying loose ends. Easily operated attachment devices are located at shoulder level for the alternative attachment of either combat pack, sleeping bag, or other equipment. Webbing tabs with a channel for carrying a hand grenade are located on each strap at chest level.

Combat Pack. A small pack of simple design permits flexible employment since it can be carried in four different ways: from the belt; from the suspenders; by a shoulder strap; or by hand as a kit bag. It has a minimum capacity for one "C" ration, poncho, toilet articles and one pair of socks; with an expandable feature in the cover to provide for loads of greater bulk. A waterproof name-plate holder is located on the



Here's how the universal carrying strap is used to tote different kinds of ammunition.

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cover. The intrenching tool can be suspended from this pack or from the belt.

Universal Ammunition Pouch. These pouches are suspended from the belt with additional support being provided by the suspenders. Their positioning on the belt is very flexible. They can be positioned on the side during combat, thus eliminating interference with hitting the ground and crawling; or they can be positioned to the front in non-combat situations when heavier loads are being carried. In either position they give a desirable balancing effect on the total load and noticeably ease the strain on the individual. Each pouch has a capacity for ten clips of M1 ammunition, or four magazines of BAR ammunition, or any lesser small-arms ammunition load. They can also be used for rations, toilet articles, socks, underwear, baseplate for hand-held mortar, and other items. Their potential for adding flexibility to the load-carrying system appears unlimited. Their many possible uses will be developed during service and troop tests. One apparent major advantage is that a more even distribution of BAR ammunition is feasible within the rifle squad, thus eliminating a load which heretofore was very burdening on a few individuals.

Sleeping Bag. The comforter type sleeping bag, recommended for standardization in November 1951, is equipped with webbing straps to secure the bag in a rolled position. These straps carry attachments which permit clipping to the suspenders. The sleeping bag modified in this manner gives a very flexible load capacity in that extra clothing and minor miscellaneous items can be rolled and carried within. It reduces the weight of load-carrying equipment 1½ pounds by eliminating the need for the cargo pack and in addition greatly simplifies the changing from a marching order to a combat order.



Requirements for the infantry burden carrier now under development are that it does everything the mule can do, only better. It must be capable of carrying squad loads, crew-served weapons and ammunition cross-country and at walking speed.

The bag is rectangular in shape, convertible to a mummy shape by means of a quick-release zipper. Its filling consists of chicken feathers which provide adequate insulation down to plus 15 degrees Fahrenheit. It will replace the wool sleeping bag and blankets, for field use, in temperate areas.

Intrenching Tool Carrier. The standard carrier is modified to provide for attachment of the bayonet or bayonet-knife on the outer surface. This modification reduces cluttering of the belt without sacrificing accessibility to the items or other desirable characteristics.

Web Equipment Belt. This is the standard belt, pistol or revolver, M1936, which was found suitable without modification. It will become the one belt for future equipment, which together with the universal ammunition pouches eliminates the special need of a cartridge and BAR belt. An improved fastener has been called for to facilitate buckling and unbuckling.

Clothing. Trousers designed for combat use are equipped with two 8x9-in. cargo pockets located on the outside seam of the leg above the knee. A smaller outer pocket is superimposed on each of the cargo pockets. One of these pockets is designed for the first-aid dressing, the other for a compass. The cargo pockets are not designed for specific items, their primary purpose being to provide flexibility and for supplemental utility cargo space. A lightweight poncho could be carried in one of these pockets.



A cargo-carrying one-man helicopter capable of lifting infantry loads for short distances has intriguing possibilities.

All-Purpose Strap

During the study at AFF Board No. 3 it became apparent that an urgent requirement existed for an all-purpose means of carrying infantry crew-served weapons ammunition. At present, numerous bags, each with a special purpose, still fail to meet our rapidly changing needs. To meet this requirement, a universal carrying strap was developed in conjunction with the airborne experimentation. The item is very simple, merely a 7-foot web strap with a quick-adjustable loop containing three load spacers and a "V" ring on one end, and running snap fasteners and sliding "V" ring on the other. Tests to date indicate that in addition to being a suitable replacement for all special purpose ammunition bags, the strap possesses a wide variety of other uses such as: facilitating the carry of crew-served weapons, or litters. It can be used as a scaling rope and in improvising a pack; for parachute-jumping ammunition loads; and,

(Continued on page 29)

CIVIL CONTROL OF MILITARY POWER

NO one will venture to disagree with the statement of Dean Smith of Berea College, in the volume under review,★ that "One of the most ancient and difficult problems of political society is that of the proper relationship of military power to civil authority." Few will disagree with his five criteria of "democratic civil control":

(1) The heads of the government are civilians and are the representatives of a majority of the citizens to whom they are accountable and by whom they may be removed by the normal functioning of existing legal and political processes;

(2) The professional heads of the armed services are under the control of the civilian leadership of the government in a manner which is both constitutional and effective;

(3) The departmental management of the military establishments is under the authoritative direction of civilians who co-ordinate all phases of the program, and are themselves responsible members of a responsible administration;

(4) Elected representatives of the people make the general policies, including such things as the decision about war, the voting of money and men for military purposes, and the granting of whatever emergency powers are required; also they are able to exercise an ultimate and general control over those responsible for the execution of policy;

(5) The courts are in a position to hold the military accountable for the protection of the basic democratic rights of the people of the nation.

But the conclusions on which he rests in emphasizing "the high urgency of civil control" are more doubtful:

★*American Democracy and Military Power. A Study of Civil Control of the Military Power in the United States.* By Louis Smith. 1951. The University of Chicago Press. 370 Pages; $5.00.

COLONEL FREDERICK BERNAYS WIENER, Judge Advocate General's Corps-USAR, has contributed to this magazine and its predecessors for many years. He has been a Reserve officer since 1936. During the Second World War he saw duty in Trinidad, Guadalcanal and Okinawa. A practicing attorney in civil life, he is general counsel to the Association of the U.S. Army.

DOGMA *VERSUS* REALITY



SEN. LYNDON JOHNSON

"... the Secretary of Defense [should] appoint a group of eminent and qualified citizens to make a comprehensive and thorough study of the entire problem of the utilization of manpower by the armed services ..."



SEC. HENRY L. STIMSON

"... it is my view that the decision of vital matters which are intrinsically military in character should remain the responsibility of our trained soldiers. ..."

If—as seems to be the case—the military are more prone to war than civil leadership, then such control is necessary to the end that the horrors of war may possibly be averted. If—as seems to be the case—civilians are more successful than the military in eliciting the whole strength of the nation for war, then their leadership is even more necessary, for if the fact of a war is a national tragedy, the loss of one under modern conditions is the ultimate national calamity. And if—as seems to be the case—the military are more prone to suspend democracy and to invoke war crises as a justification for subverting democratic liberties, then it is vital that civil control remain lest free men should lose their liberties at home in the very process of defending them abroad.

THE infirmities of these conclusions are assuredly not the fault of Dean Smith's coverage. He discusses the American tradition of civil dominance, the Presidency and the administration of national defense, and the problems of interdepartmental co-ordination. He analyzes fully the vexed problem of Congressional committees and the conduct of wars. He runs through the lawsuits, famous and otherwise, that reflect the degree of judicial control of the military which is exercised by the courts. He sees, rightly enough, that the "role of the states in the restraint of military power" is "obsolete." He collects the literature of the subject and quotes at length from the writings of his former colleagues at the University of Chicago. Since these gentlemen, by and large, treat the military with a considerable reserve, there emerges at least a trace of anti-military sentiment, as when Dean Smith criticizes Congress for voting a

Colonel Frederick Bernays Wiener

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70-group Air Force where the President, in 1949, was willing to recommend only 48 groups. Apparently, the preferred civil control is one that cuts rather than increases military budget estimates.

But the real shortcoming of Dean Smith's genuinely stimulating book is that it is essentially doctrinaire, that it shoots an obsolete gun, militarism, at the wrong target, with the wrong gunner aiming and firing it.

The Wrong Gun

PERHAPS I may be pardoned for quoting from a review written two years ago, of a work with a similar approach:

> We can better understand the traditional subordination of the military power to civil authority if we recall its origin: the English experience with Cromwell's Army. That armed force enabled the Protector to oust the King, and, in due course, to eliminate Parliament. The ensuing resentment against a standing army which was then bred in men of English speech long hampered the development of a proper military policy, not only in Britain, but also in America. The principle persisted; it is still popular. But just what precisely does it mean?
>
> Actually, it means just what it meant in seventeenth century England. It means that in the United States the armed forces are the servants and not the masters of the government, that rulers are selected at the ballot box and not at councils of war or military staff conferences, and that the United States Army is non-political and does not, as in pre-war Japan undertake the assassination of unpopular officials, or, as in the republics of Latin America and the Levant, spark-plug the endemic revolutions that seat and unseat a succession of presidents. . . .
>
> The traditional concept includes as well a firm acceptance of the notion of a civilian President as Commander in Chief, surrounded by civilian secretaries who speak in his name and with his authority. When the Secretary thinks Yes and the Chief of Staff thinks No, the answer is Yes. It does not follow, however, that Yes is therefore automatically the correct answer, or even that the Secretary is always the better citizen.

OUR history is full, too full, of examples of cherished civil-supremacy dogmas that all but lost the Republic. Take the notion that it was wrong to have a standing army at all. In 1784, the following preamble was solemnly offered in the Continental Congress: "And whereas standing armies in time of peace, are inconsistent with the principles of republican Governments, dangerous to the liberties of a free people, and generally converted into destructive engines for establishing despotism." Yet within the decade then just past the spark of Independence had been all but extinguished because the civil power could never be persuaded that short-term enlistments were unsound.

Almost in vain did Hamilton urge in *The Federalist*, supporting the Army clause of the Constitution:

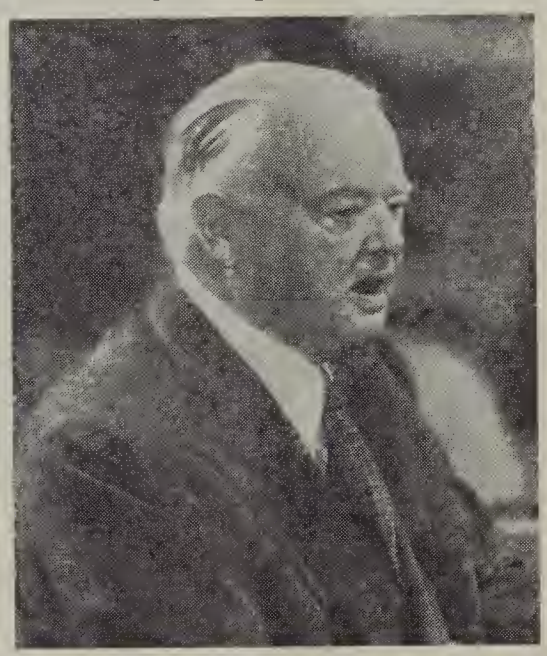
> Here I expect we shall be told that the militia of the country is its natural bulwark and would at all times be equal to the national defence. This doctrine, in substance, had like to have lost us our independence. It cost millions to the United States that might have been saved. The facts, which from our own experience forbid a reliance of this kind, are too recent to permit us to be the dupes of such a suggestion.

That argument, to be sure, saved the Army clause of the Constitution, but the militia notion was still strong enough to force into the now revered Bill of Rights the Second Amendment:

> A well regulated Militia, being necessary to the security of a free State, the right of the people to keep and bear Arms shall not be infringed.

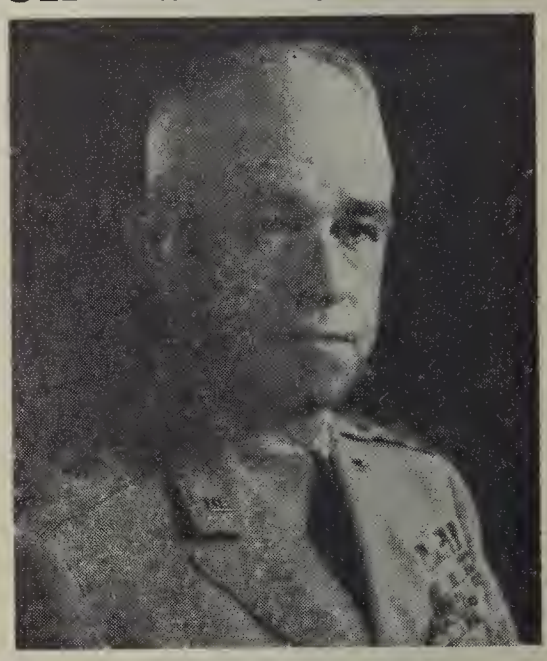
With all deference, that principle had been proved untrue in the Revolution. It was proved untrue again in the War of 1812: we had, in 1808, a militia aggregating 674,287, including 80 major generals and 226 BGs—and look at the disgraceful shellacking we took. The sad fact of the matter is that the Militia was never a workable instrument of security, because under the Militia clause it could not be "well regulated." The Militia could not constitutionally serve in Mexico, it walked off the field at First Bull Run, and some of it refused to go overseas in 1898. In 1917 it had to be drafted—and in 1940-41 it was the NGUS, organized under the Army clause. Military opinion has not been unanimous as to the efficiency of the units originally ordered to duty on the latter occasion. Accordingly, when, during the closing months of World War II, an effort was made to formulate "general principles of national military policy to govern preparation of post-war plans" (War Department Circular No. 347 of 1944), principles framed in order to provide "full opportunity for competent citizen soldiers to acquire practical experience through temporary active service and to rise by successive steps to any rank for which they can definitely qualify; and with specific fa-

WHICH VOICE SHOULD WE HEED?



MR. HERBERT HOOVER

"... the military strength of America does not lie today in great ground armies. How many mistakes do we have to make before we learn that our genius lies in the invention, production and operation of great weapons? . . . The effective deterrent which American resources can contribute is not bayonets against overwhelming land forces, but the expansion of air power and navies to make up a great striking force . . ."



GEN. OMAR N. BRADLEY

"Air power, like every other weapon, has gaping limitations for war as we shall know it for many years to come. . . . I am convinced beyond any reasonable doubt that should this nation be forced into still another conflict, we shall once more be forced to gain the inevitable victory over our dead bodies —those of our soldiers on the ground. If I did not [so] believe . . . I would readily recommend abolition of the Army . . ."

cilities for such practical experience, qualification, and advancement definitely organized as essential and predominating characteristics of the peace establishment"—certainly an advanced and equitable concept at which no non-professional could fairly cavil—the National Guard as such was nowhere specifically mentioned.

But—after V-J day, to the wild huzzas of vocal and as yet unburied statesmen, we proceeded to organize a much larger National Guard.

OUR Republic in the era of a cold war badly needs a citizen reserve of trained officers and men constituted in units whose efficiency will not vary with the high-mindedness or otherwise of State governors and the professional integrity of State adjutants general. By the same token, our Republic at this juncture of partial mobilization needs a citizen reserve which will be called up on a basis of military need and not on the basis of how many general officer positions will thereby become unavailable to deserving Regular colonels (or with similar queries down the ladder of rank). Nothing that has been brought to light since the end of the Second World War gives anyone hope that either of these needs has yet been met—or indeed is within reach of being met within the foreseeable future.

It would be very helpful all around if the political scientists and the experts in public administration would stop seeing militarists under every bed just long enough to come up with a plan for organizing civilian components that would (1) reflect the brains and ability and competence of our country, (2) be safe from the political favoritism of State capitols, and (3) be equally safe from the narrow and blind professionalism that objects to any non-Regular above the company grades—in short, a plan to implement the vision that flashed forth from Circular 347 of 1944.

Up to now, it is scarcely necessary to add, the civilian supremacy wonder boys have not produced any such plan.

The Wrong Gunner

THERE is another vital and fundamental problem of our military policy toward the solution of which the doctrinaire reiteration of "civil supremacy" provides not even an outline, and that is the composition of our armed forces. For on these points the civilian is fully as fallible as the citizen whose working hours are spent in military uniform. Three aspects of that problem, out of many more that could be discussed, will serve to illustrate.

The first concerns the proper role of air power. We now know that our strategic bombing, though it contributed materially to the defeat of the Axis, was far from being as successful as even the more modest wartime claims indicated. We know that on many fronts over many months our tactical bombing was less effective than it should have been, no doubt in large measure because the very term "air support" implied a position of subordination rather than of independence for the air arm—and after twenty years of being kicked about by unimaginative colonels on the General Staff, the fly-boys insisted on independence. Here an emotional bias, one which is far from fully dissipated even now, worked to the disadvantage of the common effort. To the extent that Marine Corps aviation furnishes more effective ground support, undoubtedly that circumstance is due to a greater feeling of identity between the Marine in the air and the Marine on the ground.

But air power has its civilian advocates no less fervent than the command pilots in their shade 88 uniforms. Here is what Ex-President Herbert Hoover told his fellow-Republicans in July of 1952:

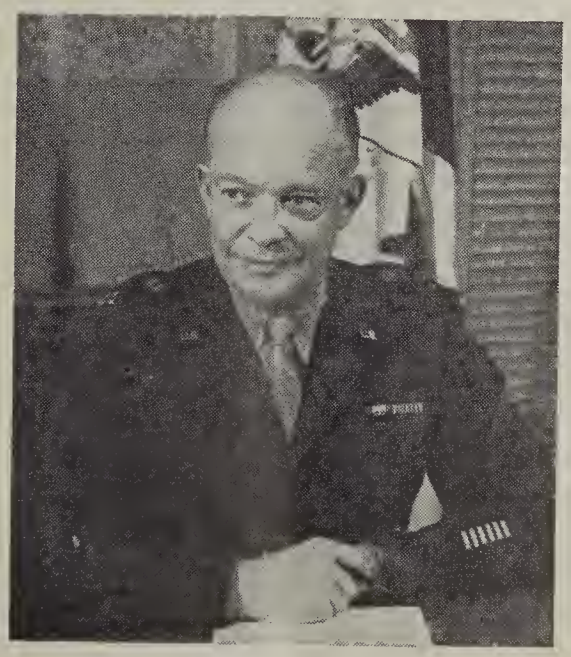
> . . . the military strength of America does not lie today in great ground armies.
>
> How many mistakes do we have to make before we learn that our genius lies in the invention, production and operation of great weapons? Our future is in great weapons, not in bayonets. . . .
>
> The effective deterrent which American resources can contribute is not bayonets against overwhelming land forces, but the expansion of air power and navies to make up a great striking force, which could destroy the Communist military potential if they started any aggression anywhere. And this striking force naturally includes strategic bases with a stretch of water in front of them over which Communist armies cannot pass our navy.

What this proposal comes to, in plain English, is that when and if the Red Army marches, we should retaliate with the atomic bomb. Let us pass the morality of atom-bombing the Russians, because as General Bradley pointed out on a memorable occasion, all war is im-

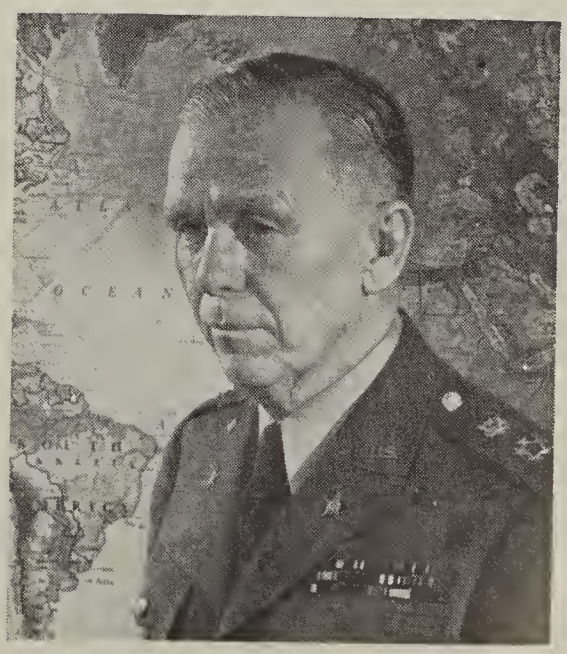
Does acceptance of the principle of civil supremacy mean that our Chiefs of Staff are less capable than civilians of writing a table of organization?



GEN. J. LAWTON COLLINS



GEN. DWIGHT D. EISENHOWER



GEN. GEORGE C. MARSHALL

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moral. Let us also pass the question of the Russians' atom-bombing us, because retaliation after all is one of the risks of a shooting war. But if we are to withdraw our ground forces from Europe, as Mr. Hoover and those like-minded urge, then the Red Army will pour over Germany and France—and thereafter war on the Hoover model against the Communist armies will mean atom-bombing Germans and Frenchmen. What of the morality involved in that? And how does the "civil supremacy" formula help in resolving it?

ANOTHER aspect of the problem of the composition of our armed forces has to do with the much-vexed role of the Marine Corps, an aspect more prominent since President Truman's unfortunate remark was made the vehicle of a movement which all but established it as a wholly separate and autonomous armed force. Did Senator Douglas' bill, which as introduced would have made the Commandant of the Marine Corps a member of the Joint Chiefs, with a vote although the Chairman had none, have any real basis except the emotional—the emotion of his own war experiences therein included?

This is admittedly a subject which does not lend itself to dispassionate discussion. But there can be no dispute about some underlying facts. First, from 1775 or 1798 until Armistice Day, 1918, the Marines never had more than a brigade in the field at any one time. Second, in all the invasions in the North African, Mediterranean, and European Theaters—North Africa, Sicily, Italy, Southern France, and, pre-eminently, Normandy—the Army waged amphibious warfare and landed hundreds of thousands of men on hostile shores without the assistance of a single Gyrene.

Question: On the basis of the indisputable facts just set forth, what sound reason is there to continue to maintain two separate land armies? Second question: Why have none of the economy-minded statesmen in the halls of Congress seized upon this particular example of wholesale duplication? Third question: What has the "civil supremacy" school of thought said about such an instance of duplicating militarism?

The answer to the third question is that Dean Smith's book just isn't aware of the problem.

A THIRD aspect of the problem of the composition of our armed forces is that of their internal organization. In the past, from the 1790s through 1916, Congress undertook to prescribe just how many men there should be in a company, how many companies in a regiment, and so on. Thereafter, wiser councils prevailed, and organization was left to the experts, with the men who had to command and administer and fight wars with the units in question.

But now a contrary tendency has begun. The Senate Preparedness Investigating Subcommittee has just recently announced that "there can be only one solution to the dilemma presented by the urgent need for both military and economic strength," namely, "to increase the effectiveness of our defenses while decreasing their costs." This, of course, is eventually a *non sequitur*, because in any organization there comes a point beyond which economy dilutes effectiveness. To be unkind, but wholly relevant, just look at the effect of Mr. Secretary Louis Johnson's economies.

The Subcommittee considers alleged wastefulness in personnel overhead, particularly, with respect to Army organizations, in respect of administrative, automotive, and communications personnel. The report concludes that "manpower reorganization is the road to economy and the road to strength"—though it recognizes that "manpower reform . . . is a task that is beyond a congressional committee." It therefore recommends

> that the Secretary of Defense appoint a group of eminent and qualified citizens to make a comprehensive and thorough study of the entire problem of the utilization of manpower by the armed services and that they render a report to the Secretary as soon as possible with recommendations as to the more efficient and economical use of military personnel. A majority of this group should be civilians. It should have an adequate staff of its own selection and, in addition, should have authority to obtain the best technical advice available. When this report has been rendered to the Secretary he should immediately make it available to this committee and the other appropriate committees of Congress.

And, in the same month, in Section 640 of the Department of Defense Appropriation Act for Fiscal Year 1953, Congress solemnly enacted that

> The Secretary of Defense is hereby directed to submit revised tables of organization and tables of equipment of the Army, Navy, Air Force, and Marine Corps to the Congress, together with recommendations for decreasing the number of personnel positions, clerical positions, supply positions, and other administrative positions so that the combat effectiveness of our Armed Forces may be improved.

Of course a watchdog committee fulfills a useful function; of course a garrison Army develops too much fat. But it does not follow, as the Act of Congress seems to imply, that a company of infantry composed solely of riflemen is 100 per cent combat effective, while one with clerks, cooks, and signalmen included is somewhat less so. Indeed, even when T/Os were pruned by a most expert hand, that of the late Lt. Gen. Lesley J. McNair, it was found that, in combat, the units which were administratively lean were less able to function when they incurred casualties than those which had additional administrative personnel on whom to draw.

There is no evidence whatever in the Subcommittee's report that it considered in any degree our World War II experiences with T/Os that had been cut and with T/Os that were thereafter beefed up. Yet how can anyone who has not examined that experience conclude that the "manpower reform" which will relieve the harassed taxpaying voter is also bound to increase combat efficiency?

WHY, it can be asked, is a group composed of a majority of civilians better able to come up with the right answer than a group composed of a majority of service officers who have been struggling with the problem all of their mature lives? It would be just as sensible to suggest that the reorganization of a sick industry should be entrusted to a group most of whom are officers of the armed forces. True, in each instance, the man with the "open mind," *i.e.*, unencumbered by any previous consideration of the problem—may, if he has sufficient innate ability, come up with some ideas that are genuinely helpful. But for the most part, the uninitiated will only think of a "solution" that has already been tried—and found wanting.

No, the proposal of the Senate Subcommittee, which in essence is that the expert shall not even be on tap, is obviously unworkable, though conceivably it may be another manifestation of "civilian supremacy." Up to now, however, it has not been urged in years not divisible by four.

It would be well for members of the Subcommittee to ponder what the late Secretary of War Henry L. Stimson said on this point in 1942:

> . . . it is my view that the decision of vital matters which are intrinsically military in character should remain the responsibility of our trained soldiers. . . . They are the only people among us who have the training and the information necessary to carry this responsibility. . . .

The Wrong Intelligence

LET us revert to the second of Dean Smith's criteria for democratic civil control, namely, that

> The professional heads of the armed services are under the control of the civilian leadership of the government in a manner which is both constitutional and effective.

The last two words, *and effective,* should be underscored, for although one would never suspect the fact from Dean Smith's books, present controls are far from effective—and the only informed disagreement ranges over the precise degree of ineffectiveness.

Let us recall, first of all, that what was widely hailed as unification was not that at all, but triplication, and with a fringe on top whose tassels, individually and collectively, are growing larger daily.

Let us return to fundamentals: The basic impetus for unification was the reaction to the waste of effort and the waste of money inevitable in the duplication by the Army and Navy of auxiliary—not in any sense primary—services and facilities during the Second World War. That duplication was more obvious in the Pacific and in the ZI, because in Europe and Africa the Navy played a smaller role. The standard example of duplication was, inevitably, the two general hospitals, one Army and the other Navy, side by side on the same island. The purpose of unification was to eliminate this kind of senseless, expensive overlap.

So what did we get? We got three Medical Services where we had only two before, because the Air Force's pride, prestige, and indeed independence required a set of pill-rollers in flyboy blue. And we now have three Judge Advocates General, each busily engaged in separately interpreting the same Uniform Code. And that isn't all, because on top of the three sets of medicos there is a high-level medical board in the Office of the Secretary of Defense, and coordinating the three wings of legal eagles there is a General Counsel and an Assistant Secretary of Defense for legal matters. Even in the days when an Army staff officer had to approach the Navy with the carefully cultivated humility of the small country's ambassador seeking a boon from the proudest of empires, coordination was infinitely easier than it currently is —as those whose Pentagon service spans an entire decade can readily testify.

THERE is an urge, not fully informed perhaps, but a definite and growing urge for real unification, as witness the recurrent legislative provision exhorting uniformity among the services insofar as practicable. And there is something more than an urge to eliminate the spending of (at least) every unnecessary dollar, though assuredly the circumstance that unification actually quadrupled, by compounding the preexisting duplication, seems not yet to be the subject of general comment. No one can fairly quarrel with the idea that unification should not be allowed to impair integrity of function. But no real unification will ever be achieved unless two fundamentals are recognized.

First, there must be a unification of service functions. We will never make progress while we maintain three Surgeons General, three Judge Advocates General, and three Chiefs of Chaplains. Neither a man's body nor his soul is varied in its essentials by the uniform he wears, nor is his instinct towards criminality changed thereby. The British ever since the RAF was created made their flyers share the British Army's JAG —without apparent decline in discipline. We have managed to concentrate most buying of supplies in the hands of the Army's QMG—and the Navy's chow on board ship does not seem to have suffered.

More important, by unifying the service elements of the armed forces, we can eliminate the insensate rivalry which marred so many aspects of victory in the past. If the strategic plan calls for the capture of an island and the construction of x airfields thereon by D plus 7, there would be, at present, a great to-do over whether the Navy's CBs, the Air Force's Engineer Aviation battalions, or the Army's Engineer battalions (Construction) would do the work—and get the glory. With properly unified services, the only question would be: how many of these construction outfits will we need? Y, or z, or m? Once that comparatively simple question is settled, there is no more rivalry, because there would be only one engineer service in the armed forces. Why should a solution so simple still seem so utopian?

Second, there must be, in some form, a military staff at the Department of Defense level, because, as every informed person knows, the present system of layering selected civilians and detailed officers over the three existing staffs just isn't working. It isn't working because initiative is sapped at the military department level—"no use going forward if DOD is going to change it all anyway"—and because the civilians, however able most of them are in their own right, are handicapped by lack of knowledge and by lack of experience. When their military advisers get service conscious, and start to build their particular uniform's empire, then the civilian must referee—a task for which he just isn't equipped. He is in the not-so-imaginary position of the rustic justice of the peace who, without legal training, is called upon to decide a technical legal point which two trained and resourceful lawyers have just argued loudly and learnedly before him. The squire is in a dilemma, because he doesn't know the real answer—and knows that he doesn't know it. The analogy is obvious.

THE concept of a super-staff, of course, rouses civilian emotions (or is played upon to do so), and, in greater degree, that is true of the concept of a single military chief of staff. In 1945-46, Navy spokesmen saw dictatorship lurking in these ideas. Prior to 1903, Lt. Gen. Nelson A. Miles, Commanding General of the Army, attacked Secretary Root's General Staff proposal as "monarchistic" and "Prussian." Both arguments, it may be ventured, created heat rather than light. We know that Fleet Admiral Leahy, as Chief of Staff to the Commander-in-Chief, was essentially a professional adviser and not even faintly a Man on Horseback. We know that, under the original National Security Act of 1947, the Joint Chiefs of Staff, attempting to function without a Chairman, just didn't function. And how the shop will work after General Bradley retires, no one knows—and almost everyone fears.

The JCS provides a joint military staff to deal with strategic problems. What is needed is a similar staff to deal with administrative and organizational problems, to handle them as now they are not being handled in the existing order —*i.e.*, with competence and with dispatch.

It would be dogmatic to urge a particular solution to these two most pressing questions of military organizational policy. But their urgency cannot be denied—except, of course, where the problem of controlling the military is viewed in a vacuum. That it is so viewed in Dean Smith's book is proved by that volume's total unawareness of the tangles of "unification."

The Wrong Target

THE view that the essentials of the doctrine of civilian supremacy are un-

(Continued on page 39)

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HOW DO YOU COMMAND?

Colonel John W. Cave

THE morale of an outfit is made or unmade by its officers. At any level of command the commander must know when things are right and where credit is to be given. You should give credit when it is due, being careful, however, not to confuse the giving of credit to subordinates with the hypnotizing self-conclusion that "all's well, let's go get a cup of coffee" and pat yourself on the back. You must take a close look at the poor actions and the untaken actions.

Modern American industry has learned that management must look upon its men as partners in the production team. The reason for this is very simple—simple indeed with the hindsight of 175 years of the Bill of Rights. You can't raise the standard of liberty as we did in 1776, giving men a taste of the strong potion of human freedom, and at the same time retain an autocratic "Theirs not to reason why" philosophy of command.

Your soldiers are free men. They were free when you got them, and they will be again. They are reasoning men. They are equals in any stacking up against the standards of human dignity. Are you treating them as equals? Fighting organizations are still necessary in this world of 1952, and we agree that our country must remain strong. Then is it not fundamental that we officers must never dull the spirits of our citizen soldiers? Is it not our duty to so treat them that they prefer to make the personal sacrifices demanded in military service by the world situation? And let's never forget that the dignity of the individual soldier is the most powerful force we have.

On Founders Day at West Point, General J. Lawton Collins said: "Our officer corps is dedicated to the belief that our high standards of character and integrity must be maintained. We recognize, honor and preserve the dignity and identity of the humblest soldier. This is probably the most fundamental relationship in the Army—between the officer and the men who are entrusted to his care. Undoubtedly we have the most democratic army in the world. But its performance on the battlefields of Korea has clearly shown that it does not lack discipline. The fact that our discipline is a reasonable and not a rigid thing made much of the magnificent performance of our Army possible because it did not thwart the resourcefulness and initiative of the individual soldier."

That's your job as a commander—as a manager. It isn't an easy one.

THE soldier with his weapon is the man who actually does the fighting in a military machine. In managing your command, do you have prompt and accurate information on your men as they go through the training process? What are their problems? How are they responding? Or do you take refuge behind the old saw that "since war is hell anyway, a little hardship will do them

COLONEL JOHN W. CAVE, Ordnance Corps, is a member of the faculty of the Industrial College of the Armed Forces. He graduated from the U. S. Military Academy in 1931 and was commissioned in the Field Artillery. In 1940 he transferred to the Ordnance Department and during the Second World War was intimately involved in research, development and testing of infantry weapons and artillery and aircraft munitions. He served overseas in both the European and Pacific theaters. He was a student at the Industrial College in 1947-48 and served on the Munitions Board before going on his present assignment.

good?" Do you indulge in the kind of thoughtlessness that was curbed by our old troop and battery commanders when they insisted that an officer be among the very last to leave the picket line; that officers could not eat until the men and animals were fed.

When did you last check on the mess at the *breakfast* chow line?

Don't answer that one. Let's get down to fundamentals.

Modern military might stems from economic strength. It is our vast and complex organization of industry, and our management of it, that gives our country weight in world affairs. So let's take a look at some advanced thinking on management problems.

There are hundreds of rules on management, and nearly as many "principles"; but there is one thing on which almost all are agreed: there is no single answer. Yet there is a color to almost all the answers. What is it?

Mary Parker Follett, a brilliant pioneer in the management field, respected by industrial managers and leaders, put it this way in writing of the problem in industry: "One person should not give orders to another person, but both should agree to take their orders from the situation. If orders are simply part of the situation, the question of someone giving and someone receiving does not come up. Both accept the orders given by the situation. From one point of view, one might call the essence of scientific management the attempt to find the law of the situation. With scientific management the managers are as much under orders as the workers, for both obey the law of the situation . . . the order must be integral to the situation and must be recognized as such."

CAN this idea be applied to military command? Probably not. But it is not as foreign to our job as you may think. How do *you* get decision acceptance?

Miss Follett has gone on to say: "Our idea of power is changing. Power is now beginning to be thought of as the combined capacities of a group. We get power through effective relations. This means that some people are beginning to conceive of the leader, not as the man in the group who is able to assert his individual will and get others to follow him, but as the one who knows how to relate these different wills so that they will have a driving force. He must know how to create a group power rather than to express a personal power. He must make the team."

Ponder on this idea for a moment. You can always reject it, but if it has a grain of truth, let's see if we can use it. Where are you in this picture? For centuries military success was founded upon the superior ability to maneuver men on the field of battle. This is the basis of military close-order drill. Are we, in the middle of the twentieth century, and in the midst of a complete revolution in the art of war, retaining a dogged grasp on the vestigial remnants of age-old command techniques?

IT is generally the nature of human beings to stay in a mental rut. Old ways are the easiest. But whether we admit it or not, the skill demanded in team-play and team-effort bears at least the same relation to the old "theirs not to reason why" philosophy as the atomic bomb does to a muzzle loader. A good look at the combat histories of the last two wars confirms the conclusion that in battle it is team-play that wins and not the autocratic command of rank. The strength of team-action flows from the release of initiative and resourcefulness by the men who make up the team. In the case of our American soldiers this human quality has been magnified by their environment in a free nation; by their wholesome desire to understand the reasons for what they do. One of our great military leaders recently said, "the man who is going to be given responsibility for execution of a part of the over-all plan must be fully consulted, integrated into the machine making up the plan—early and late—else he is never a part of it."

Industry has faced up to this problem because it is dealing with men. So are we. Skill in business management has had to stand the acid test of a profit-and-loss sheet. True, the balance sheet isn't as decisive as an enemy bullet, but it is decisive enough to have been the basis of some deep thought and much study and experimentation. Industry has learned that one highly successful approach to its management problems is simply to make sure that everyone up and down the line knows what the score is before each play is called.

DO your men know the score? Men can undergo great hardship if there is a reason for it and if they know what the reason is. They will also rebel against the most trivial inconveniences that appear to be unreasonable or unnecessary. And that's why "score" is a pretty good word in this case. "Score" goes with a game—a square, honest game. Americans can smell a shortsighted, blunder-covering command three echelons away. What is worse, unless the score is explained, they'll attribute even minor unavoidable hardships to dimwittedness in the chain of command.

Commanders must do some honest soul-searching on this subject. If we can improve we'd better improve, and we'd better be quick about it. The best and easiest kind of improvement is self-improvement, the self-improvement that comes in response to the "law of the situation." If we don't produce the improvement it will come by the demand of public opinion or the final, inescapable command of a superior enemy force.

We simply cannot be satisfied that we're as good as we can be at this command game. If there is another war, the nations that win it aren't likely to be the ones that simply improved on old stuff. It will probably be those that found a better way to do the job. And the best way is the team-way —all the way down—and up—the line.

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Marines, moving along the top of a ridge, watch friendly mortar fire smear adjoining ridges where the enemy is entrenched and waiting.

A Marine outfit found it paid to get on the high ground and stay there

Major Gerald P. Averill

COMBAT in Korea is a constant, bitter battle of man against Nature; merely to move through and over the hills and mountains that march endlessly back and forth over the length and breadth of that desolate peninsula is physically and spiritually exhausting. Add a crafty and eager opponent (the Chinese and North Korean soldier is both), arm him with good weapons; furnish him with an adequate supply of rice and ammunition; emplace him firmly in the fastness of mountain strongholds and along the defiles that guard supply routes that are necessary to a road-bound and over-equipped Western-style army—and all the problems in logistics and tactics that could possibly be encountered appear.

Until they learned better, the ground combat forces of the U.S. in Korea had a strong and inflexible tendency to stress corridors as *the* way to enter the main battle position of the enemy. Ridges were mentioned in the books as *possible* avenues of approach, but most tacticians treated the subject lightly, or ignored it completely. When American forces joined the battle in Korea some commanders, both senior and junior, still nourished the corridor as the key to the door of the enemy's position. At Hoensong, Massacre Valley, Chaun-ni and the road to Inje, and countless other corridors in Korea, this method was attempted by units of the Eighth Army during the late winter, spring and summer of 1951. *If the high ground was taken* it was not retained, and in all instances the attacker backed off with his nose painfully bloodied, and in some cases came out of the engagement seriously hurt.

A look from the defender's point of view will illustrate why the attack up corridors failed. With the attacker

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RUN THE RIDGES AND WIN

advancing along the low ground, the defender has excellent observation over the valley floors, river bottoms, and adjacent high ground. From ridges above river valleys observation can often be measured in miles. As the attacker approaches along the valley, he may either be taken under fire by long-range supporting weapons, or is allowed to close the position, and be subjected to intense fires from the front, flanks and rear. By controlling the high ground, the defender forces his adversary to deploy in the open, and can take him under fire no matter in which direction he chooses to attack.

Weapons sited on high ground have to use plunging fire. Plunging fire is not as effective as grazing fire at long range, but when delivered in heavy volume at medium and close range it can stop, or even destroy, an attacking force. Fires of supporting artillery and mortars can be directed and observed with a high degree of accuracy from ridges and hills. This gives the defender a decided advantage over the attacker, who can not observe the effect of his supporting fires in rear areas, except from aircraft hovering overhead.

When the attacker uses the corridor as an approach to the position, the defender can accurately predict the zone of the main attack, and can place his forces to best meet the situation. The defender has almost complete freedom of movement within his position. He is able to move reserves unobserved, and his routes for supply and evacuation are covered.

With these advantages in mind, let's consider an example of what can happen to an attacking force when it disregards the capabilities given the defender in hills and mountains.

The Chinese, following a deep penetration of UN lines in April, 1951, had outrun their supply bases and were withdrawing to prepared positions in the north. In late May a plan was evolved envisioning a sweep of armor and infantry from Chaun-ni, to Inje, and turning east from Inje, to drive to the sea. This movement would cut off and trap thousands of Chinese as they moved north along the east coast. The plan became an order. Tank battalions and infantry regiments were thrown together to form a task group, and in a cloud of dust it went churning madly up the road towards Inje, flanks-be-damned! The movement north was moderately opposed by the enemy until all units of the force had crossed the Soyang River and entered the town of Kwandae-ri. Here the task group went into a defensive position for the night, not knowing that enemy forces were moving down in strength. By dawn they had ringed the entire area. At daybreak the UN infantry mounted the tanks and in a long, completely motorized column, prepared to bear down on Inje. On the right of the road the ground dropped down to the river for a distance of twenty to sixty feet. On the left it rose sharply to form hills up to seven hundred meters in height. Flank security was *not* placed on the high ground that paralleled the road. The leading elements moved out, pennants flapping in the morning breeze, and less than a mile out, where the river bended, it came to an abrupt and painful halt. The point was under fire from small arms, automatic weapons, and mortars, emplaced on the high ground to its front, flanks and rear. Enemy snipers, located just above the road, poured fire among the infantry scrambling from trucks and tanks. The whole column became immobilized, and for four hours was completely surrounded by small units of the enemy. Finally the infantry, as it should have in the beginning, cleared and controlled the high ground flanking the road. Inje was not taken that day or the next, the sea was never reached, and the Chinese escaped to fight again another day.

In spite of this and other similar incidents on record, the legend of the corridor persists, and if the Eighth Army again moves out in the attack there will be those who will again give the corridor its chance to chew up and spit out companies and battalions.

WHAT happens to this same enemy when the attack is made using a dominant ridge line as an avenue of

A Marine Corps machine-gun crew moves to the top of a ridge to back up the advance of the riflemen. Ridge-running in Korea is backbreaking toil.



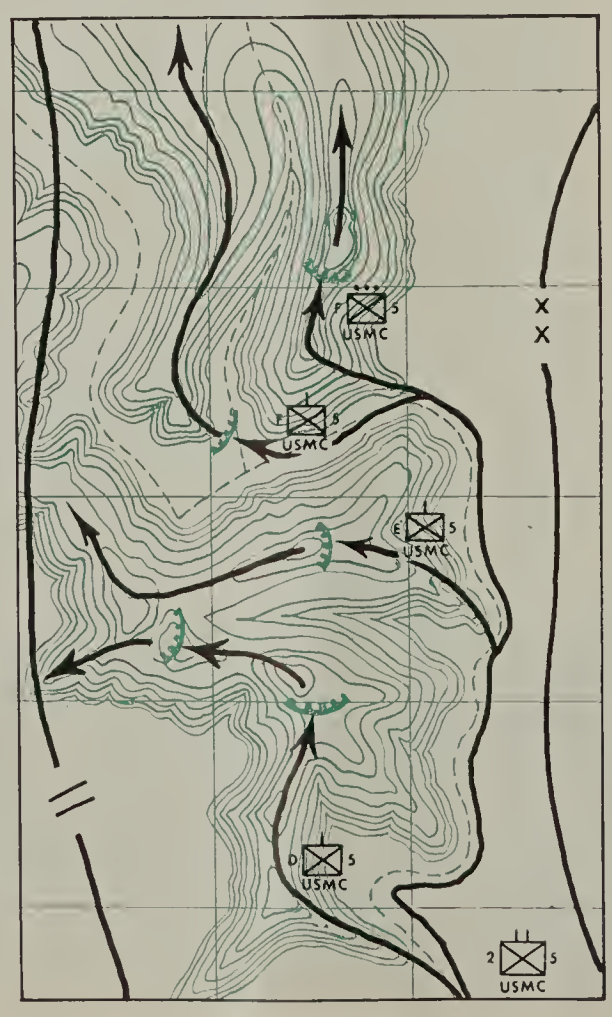
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approach?. That is the question that was posed by, and later answered by our battalion commander in late February, 1951. The 2d Battalion, 5th Marines, was in Corps reserve at Wonju, at this time. During ten days we spent on this mission the problem of operating in hills and along ridges was discussed seriously and at length. These discussions resulted in a terrain study of the area, and a tactical walk, conducted by the battalion commander for his company commanders and staff. It was decided that, within the battalion's zone of action, regardless of whether the ridge ran perpendicular to the direction of the attack, or whether it ran parallel to it, we would in the future gain the high ground from the flank or rear, and then attack along the long axis of the ridge. Security elements of from fire team to platoon size, would be sent off to clear the finger ridges that broke off from the main ridge line. The attack could be launched by a single company along a single ridge, or by employing two or more companies in the attack, adjacent ridge lines within a zone of action could be simultaneously seized. If the ridges in the zone of action formed cross-compartments we would not attack frontally, but by a series of systematic flanking actions gain the high ground and attack down the long axis of the ridge, securing all intermediate objectives in this manner. The assault on the final objective would be carried out in the same way, using for the main effort a ridge line which paralleled our direction of attack, or by means of secondary attacks flank the position and force the enemy into flight or capitulation.

Could this method work in combat? And did it? The answers are that it can and did. During the attack of the 1st Marine Division in March and April 1951, resistance was in most cases spotty and light, and therefore there was no sure way of determining the effectiveness of these tactics. But in May and June resistance stiffened, and by late May definite and heartening results could be assessed. Marine casualties within the battalion remained relatively light while the enemy lost heavily. In some cases numerically superior enemy forces withdrew in disorder and were severely hurt by our air and artillery in the process. To show by example how this was accomplished let's follow the action of the battalion on 28-29 May. These operations give a picture of how ridges running perpendicular to the direction of attack were covered, and also the mechanics of an assault on a main ridge running parallel to the direction of attack.

ON 28 May the battalion began the attack from the vicinity of Kwandaeri. The battalion attacked on the right of the regimental zone of action, with its right flank on an unimproved road which ran straight north for a distance of three thousand meters, before cutting sharply to the west. From the line of departure to this sharp bend, the zone was twice crossed by ridges running perpendicular to the line of attack. At the bend a ridge line parallel to the direction of the attack formed an inverted **U** leading into a main ridge that ran north in our zone of action. For the first example, the area between the line of departure and the inverted **U** will be used.

The plan of attack called for Dog Company to lead off, clear the first intermediate ridge of enemy, then move to the left flank of the zone of action and hold the ridge and await orders. Easy Company was to move up the right flank road, initially echeloned to the right rear of Dog, and as Dog attacked, Easy was to advance westward along the second ridge until contact was made with the battalion on the left. Easy would hold its ridge until it got further instructions from the battalion commander. Fox Company was to follow Easy up the road, and as Easy Company moved west along its ridge, Fox would assault both fingers of the **U** and secure the entrance to the main north-south ridge line behind the **U**.



Dog Company moved out, climbed its ridge and advanced six hundred meters before it came under fire from enemy emplaced in bunkers, located at the junction of the finger ridge and the first east-west ridge line. Fire from 81mm mortars supported Dog's attack, and as the assault elements closed, the enemy withdrew to prepared positions along the east-west ridge. A captured prisoner said that one North Korean battalion was defending within our zone of action. Dog pursued and after a brisk fire fight the enemy fled, allowing Dog to advance the entire length of the ridge.

Easy Company advanced up the road without incident until it moved on its assigned ridge. At this point it was taken under light fire from riflemen emplaced along the crest of the first hill. The company forced the enemy out of position, and stayed there without further disturbance by the enemy.

FOX COMPANY, with the battalion command group, moved up the road. Before it reached the turn in the road two North Korean soldiers surprised it by coming out of hiding to surrender. They said that both fingers of the **U** were occupied by enemy units of undetermined strength. The company moved on, and in accordance with the original plan, one platoon attacked up the first, or right, finger ridge. The rest of the company turned west and proceeded along the road toward the left finger of the **U**, where another platoon was ordered into the assault. As the left platoon moved forward across the opening of the **U**, it surprised a squad around cook fires on the low ground. The platoon killed three and wounded two of the enemy and suffered no loss to itself. Meanwhile the platoon on the right had reached the summit of the hill. It had advanced less than a hundred meters along the ridge when it became hotly engaged by enemy firing from trenches and log bunkers. The platoon suffered twelve casualties and the platoon leader was seriously wounded, but the platoon with the help of a coordinated artillery barrage pressed forward and cleared the first six hundred meters of the ridge line. The left platoon climbed to the high ground, and under the concealment of thick forest growth moved forward to the main ridge line. The ridge was barren and enemy troops were seen digging in. With his platoon as yet undiscovered by the enemy, the platoon leader asked and got permission to withdraw to defensible ground a short distance to the rear. He then set up a plan to attack early the following morning.

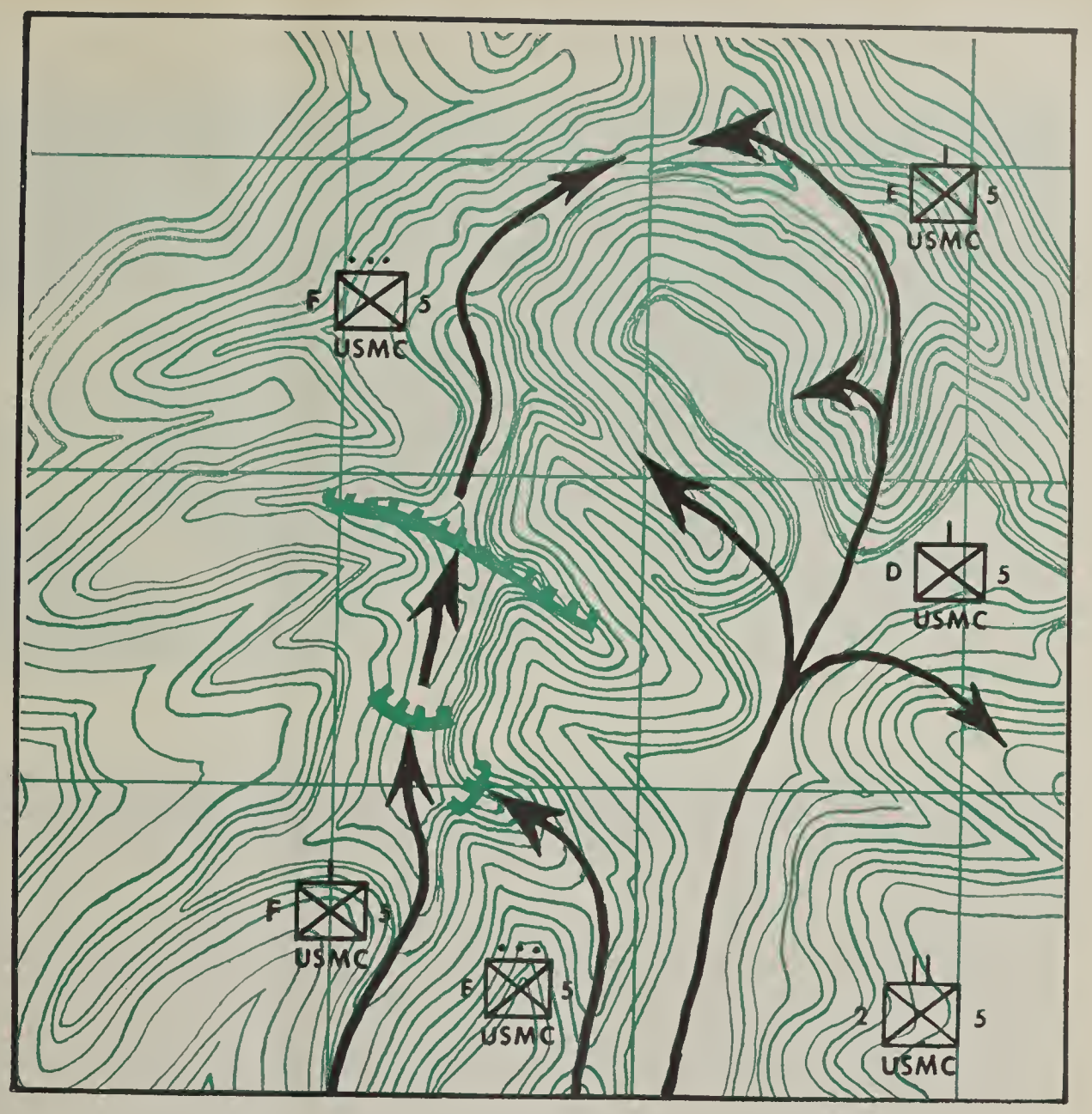
The next day's plan called for Fox Company to assault and capture the high ground immediately to its front and along the ridge forming the curve of the U. Easy Company was to move up the valley, climb the ridge and go into position to cut off and destroy any enemy forces that might be forced back along the ridge by the attack of Fox Company. Dog Company was to move east and north, and block from the high ground to Easy's rear.

FOX jumped off in the haze of early morning. The platoon on the right met light resistance, and reached the higher ground in its zone without difficulty. The left platoon found it more difficult. The enemy had dug in on the high ground on the left of the position and along the ridge extending east and north from it. The left platoon of Fox moved quietly to the edge of the woods, fixed bayonets, and under a sharp mortar barrage charged into the positions. Surprise was complete. Taken completely unaware, the enemy force broke and ran.

At this point the 1st Platoon of Fox was ordered to pass through the position and take up the attack. As it moved forward to where the main ridge line was crossed by a minor ridge, the enemy delivered a hail of small-arms fire and grenades on it. Light machine-gun fire covered the platoon as it withdrew about 150 yards to the first covered position on the ridge line. Then with the coordinated support of air, 4.2-inch mortars and light machine guns the platoon again closed on the enemy and drove him from his position. Some 300 enemy soldiers streamed off the hill, not towards Easy Company, as had been hoped, but into the valley to the west which was in the zone of the adjoining battalion. Fox consolidated its position along the ridge, made contact with Easy and tied in for the night.

THUS one battalion, with actually only one company in the attack, had forced a North Korean regiment to withdraw from the battalion zone of action and had inflicted heavy casualties on the enemy with less than thirty casualties to the battalion.

The battalion continued to attack through May and June against ever increasing resistance, using the same technique to seize key terrain and destroy enemy forces emplaced thereon. During this period we became convinced that the defense of a ridge line is a highly undesirable undertaking, when an attack is directed along that ridge and adjacent high ground. Here are reasons why:



- ¶ The defender is robbed of his initial advantage of observation.
- ¶ Fields of fire along the long axis of a ridge are shortened due to the rise and fall of the ground. Frontal, rather than flanking fire, must be delivered from weapons sited along the ridge. Coordinated, mutually supporting, interlocking bands of fire are difficult to establish. This inability to place adequate defensive fires along the ridge makes it often possible for one platoon to force a penetration of the position.
- ¶ Defending units located on low ground between ridges are vulnerable to flanking attacks, and they cannot place accurate fire on the attacker as he moves forward along the ridge.
- ¶ Supply and evacuation become increasingly difficult. The attacker can observe and bring fire to bear on litter teams, supply trains and rear-area concentrations as he advances along the ridges.
- ¶ Outcropping finger ridges can be cleared by the attacker as he advances.
- ¶ Perhaps most important of all, we learned that when the attacker has dominant observation within a position, the psychological effect on the defender is almost as great as the effect of the fires being brought down on him. He can observe the advance of the attacker not only along the main ridge line, but also along the high ground to his flanks. The fear of being outflanked and cut off may cause him to refuse to fight and lead him to withdraw. No military force will long remain in position when it can see the enemy moving aggressively on high ground to its flanks and rear. The Chinese Communist Forces and the North Korean People's Army are no exception to this.

BETWEEN 19 May and 23 June the battalion was engaged in steady fighting for thirty-five days. Except for minor variations in tactics, to fit each new situation, the same basic idea was used to achieve the results desired. Gains of from six to ten thousand meters a day had been made on an average. During the period extensive experiments had been conducted in ridge-running, and those experiments proved, to us at least, that the way to stay healthy, stay alive, and win was to get on the ridges and stay there.



WHAT GOOD IS A MACHINE GUN?

We should use them as we actually do while pretending to do otherwise

Major Robert H. Clagett

THE machine gun, which first appeared on battlefields some half-century ago, found its development governed more by technical than tactical requirements. For example, no one has ever really studied what the optimum cyclic rate of fire of a ground machine gun employed against ground targets should be. We have (all of us, in all armies) stumbled along in the belief that the "faster the better," tempered only by concern over barrel life. Logistically we might find it much better to use a far slower rate than we do and tactically we might find the slower rate equally effective.

Look at the MG42, the weapon of the *Wehrmacht*. Its rate was 1,200 rounds per minute. That amounts to twenty rounds per second or one round for each twentieth of a second of firing. Presume you are laid approximately on a target. The first knowledge the target has that you are on it is the crack of a bullet in his vicinity (providing your first round misses). Presume further that he has normal human reaction time, that is five-eighths of a second. In this time eleven bullets will have passed in his vicinity any one of which could have killed or incapacitated him. Then he must move or take some action to protect himself. This will take a measurable period of time during part of which he will still be subject to hits from your fire. For each twentieth of a second he moves within the cone of dispersion of the fire he is subject to being hit by a round.

Is this fast rate necessary?

Quite another view can be taken in favor of the higher rates when one considers the psychological factor. Ask anyone who contended with the *Wehrmacht* and in the still of the night heard the vicious ripping of a MG42. It chilled many brave hearts. It was small comfort to think that the firer of that gun was wasting ammunition and soon would have to look about for a resupply.

I HAVE no answer; nor, have you. If a good answer is to be found, this is not a simple problem but rather one that should be studied by bright brains dedicated to objective thought and provided with the necessary data to come up with a valid conclusion. The Air Force made a study of the cyclic rate of fire of its guns and found out that the fast German fighter planes were slipping between the bullets fired by gunners on U.S. bombers. Stepping up the rate precluded such escapes.

Technically much may be said for a particular rate for each design of gun. At the instant of firing of each round

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the whole mechanism goes into recoil and begins to fall back into battery. If it fires again from the precise position in which it first fired it may be said to be in "natural rhythm." If this rhythm is considered in design of machine guns it is quite probable that a very tight cone of dispersion can be achieved.

But we haven't decided yet whether we want a tight cone of fire. Perhaps a larger pattern can be tolerated than the present Browning gives us. After all, a weapon does not need to put each bullet through the hole made by its predecessor. Shotgun coverage may be more desirable. If it is, we can save many pounds of weight by eliminating the micrometer adjustments in the cradle and mount.

IT is desirable that someone undertake a study on rates of fire of machine guns and we, the infantry, should suggest to the investigator that he look at all sides, tactical, logistical and psychological. As the infantry contribution to this study, we should give some thought to the tactical use of machine guns. My own views of machine-gun tactics are unorthodox. Rather than offend the tender sensibilities of the orthodox, I will raise some questions that may provoke thought.

Are we dealing in 1918 thinking when we emphasize Final Protective Line fires for machine guns as we do?

Can we hope to close off and render impassable any line we choose where we get grazing fire?

Don't we teach FPL on one hand and have men crawl under grazing fire on infiltration courses on the other?

Can you normally expect to find suitable terrain for FPLs when your defensive position is organized along the military crest of a hill or ridge?

To find FPL terrain aren't you forced to the bases of hills and ridges and into otherwise indefensible ground?

I have no quarrel with barrages for indirect fire weapons, which can make an area a death trap for a few moments, but they are not steel doors that can be slammed in the face of a determined enemy. In the trenches of 1918 there was a place for FPLs when infantry assaulted in waves with two to five pace intervals between men, but today we are more concerned with observation and antitank fire. Can't we, or rather don't we, defend on the high ground and devil take the FPL? Ask any Battalion S3 what he found when he attempted to check the FPLs turned in on overlays to him for the battalion fire plan.

As to indirect fire for machine guns, can any gun, no matter what its cyclic rate, put more weight of effective metal in a remote area than the 81mm or 4.2-inch mortar in any given minute of time? Even the most orthodox will agree that the machine gun is an inadequate indirect fire weapon.

FOR what, then, is a machine gun good? This is a reasonable question if FPLs and indirect fire are eliminated from its tactics and technique. My answer is that we should use them as we actually do while pretending to do otherwise. We use them to keep the enemy infantry down and restrain his movement while rifles and indirect fire weapons go after him. We use them to chop up, whenever possible, masses of enemy in the attack. We use them to search out suspected locations of individuals which are beyond the normal usage range of the rifle. We use them to keep the enemy in his hole during our attack. We use them to seal embrasures while other, more effective, arms are brought to bear on fortifications.

An examination of wound statistics shows that small-arms ammunition accounts for a very small percentage of casualties compared to other types of ammunition. But we know that no one can stay exposed to small-arms fire safely; hence the greatest contribution of machine-gun fire to tactics is keeping the enemy down. This is exactly how we use machine guns today.

For these uses I think slower cyclic rates are desirable because they can accomplish what we want accomplished with a lesser expenditure of ammunition. Micrometer adjustments can go out too and save ten per cent or more in mount weights.

LET us infantrymen determine why we really need a machine gun and then pass that information on to some competent technicians who can determine the proper cyclic rate. Then let's tell the gunsmiths the facts and in time we shall have a machine gun worthy of our mission: "to close with and destroy the enemy."

To the skeptic who says we learn by experience let me remind him "the burnt child shuns the fire" but "shuns" is all he does by learning from experience. Some clear thinking would lead him to use a poker and get the use of the fire without being burnt.

My plea is simple: We must design guns to fit our needs, not plan our uses around the guns provided us.

THE LOAD OF THE SOLDIER

(Continued from page 16)

with accessories, as a parachutist's "H" harness. It also appears that it can complement, though not replace, the packboard for the carrying of heavy and bulky loads.

Detailed study of the proposed equipment in comparison with present standard equipment highlights these outstanding advantages. It is much simpler because it eliminates a maze of straps and buckles and makes adjustment, attachment, and detachment easier and quicker. It adds flexibility in methods of carrying and in the bulk and weight that can be carried.

It also is three pounds lighter than the standard equipment, a weight reduction of 40 per cent, and it is modified to increase carrying comfort. In actual field tests, testing soldiers greatly preferred the proposed items to the standard and to all other experimental equipment. And besides these advantages, a very real economy is achieved by eliminating more than 20 different items of load-carrying equipment.

THIS entire project constitutes a forward step in the eternal search for a lasting solution to this vital problem. Many new fields of thought must be systematically explored. For example, are crew-served weapons teams understrength? Don't we need that carrier to go right with the individual soldier on the battlefield? What priority of our critical lightweight materials should be given to Infantry weapons and equipment?

The entire problem is so involved with interrelated problems, so critically interlocked with tactics, logistics, training, and development that an over-all approach is essential. On such a solution a major advantage of the field of battle may depend. The danger of a highly motorized, roadbound army is highlighted in history by the defeat suffered by the German armies on the Russian front—largely due to conditions which forced them to operate with little or no motor support. Our planners and our soldiers alike must be prepared to operate under conditions greatly limiting motorized support, and forcing the soldier to exist for protracted periods with what he can carry, reinforced by air or other limited resupply.

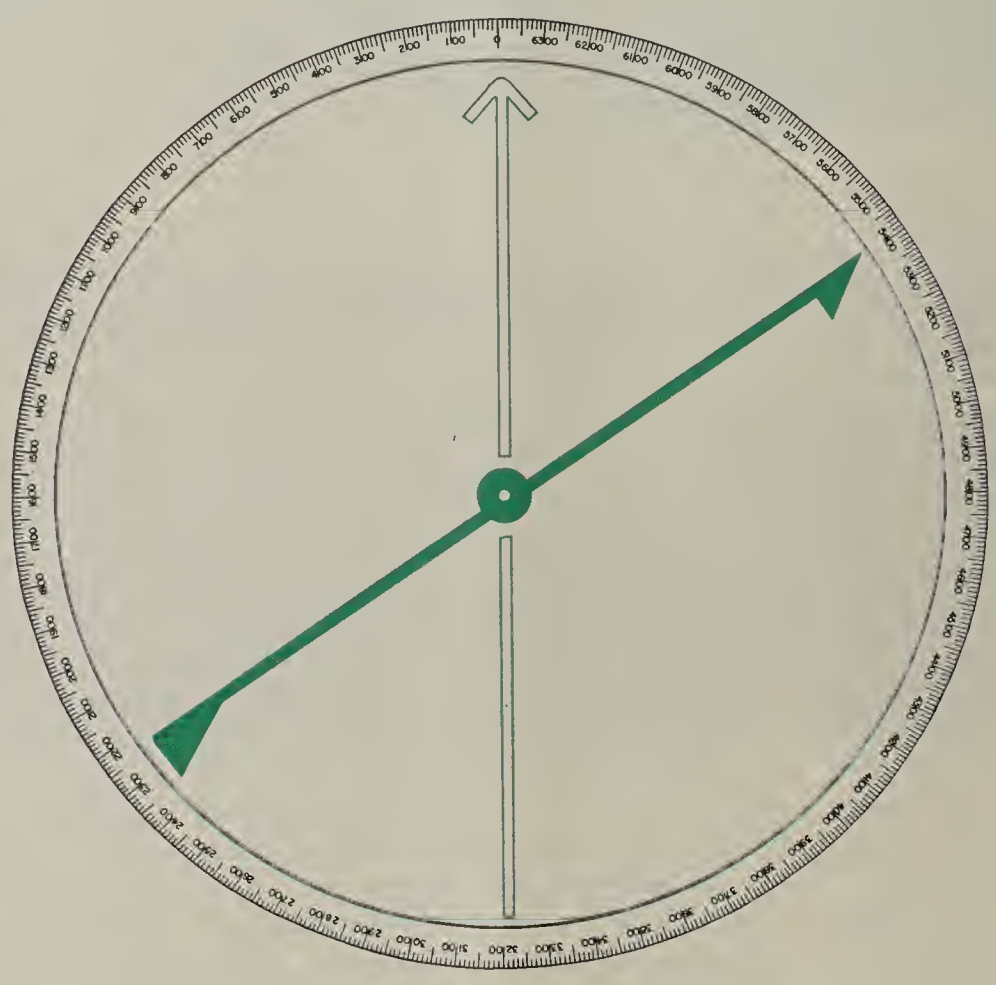
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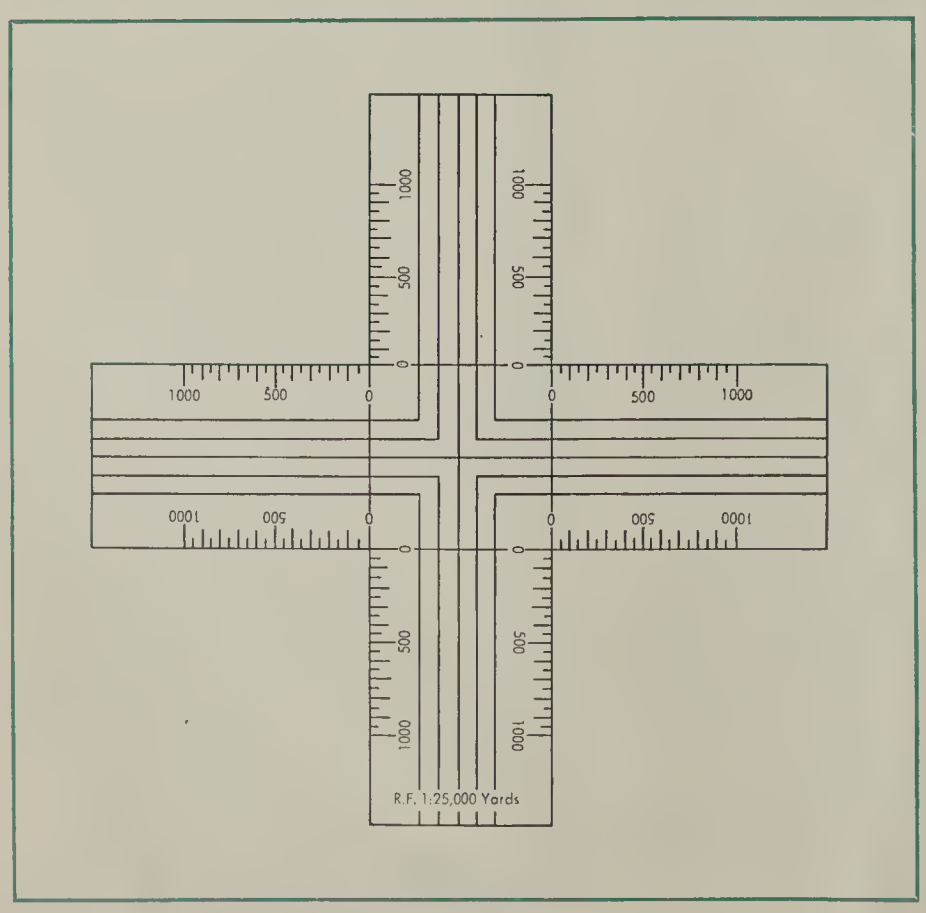
TARGET GRIDLESS

Major Robert E. Plett and Lieutenant Harvey T. Heckman

Here's a way to eliminate delay and confusion when you're shooting several missions in the same general area on the same firing chart

DURING the month of October 1951 the 77th Field Artillery Battalion expended 113,745 rounds of ammunition. Most of this was fired in direct support of the 7th Cavalry Regiment during Operation Commando, with a maximum 24-hour expenditure of 12,766 rounds. At the start of the operations, the 99th Field Artillery Battalion had the mission of reinforcing the 77th's fires (prepared to be direct support of the 8th Cavalry Regiment) and the 936th Field Artillery Battalion (155 howitzer) also had the mission of reinforcing our fires. In addition, Battery A, 17th Field Artillery Battalion (8-inch howitzer) was in general support of the division and was able to fire throughout our sector. We were supporting four infantry battalions in the attack, each with three forward observers, and for a short period we had an observer with the 16th Reconnaissance Company. Thus we were answering calls for fire from twelve to thirteen forward observers, in addition to two artillery liaison aircraft, division artillery, and the regimental commander. The maximum number of missions simultaneously processed by our fire direction center was 19 missions: 9 missions fired by our own 77th Field Artillery Battalion; 5 by the 99th Field Artillery Battalion; 4 by the 936th Field Artillery Battalion; and 1 by Battery A, 17th Field Artillery Battalion.



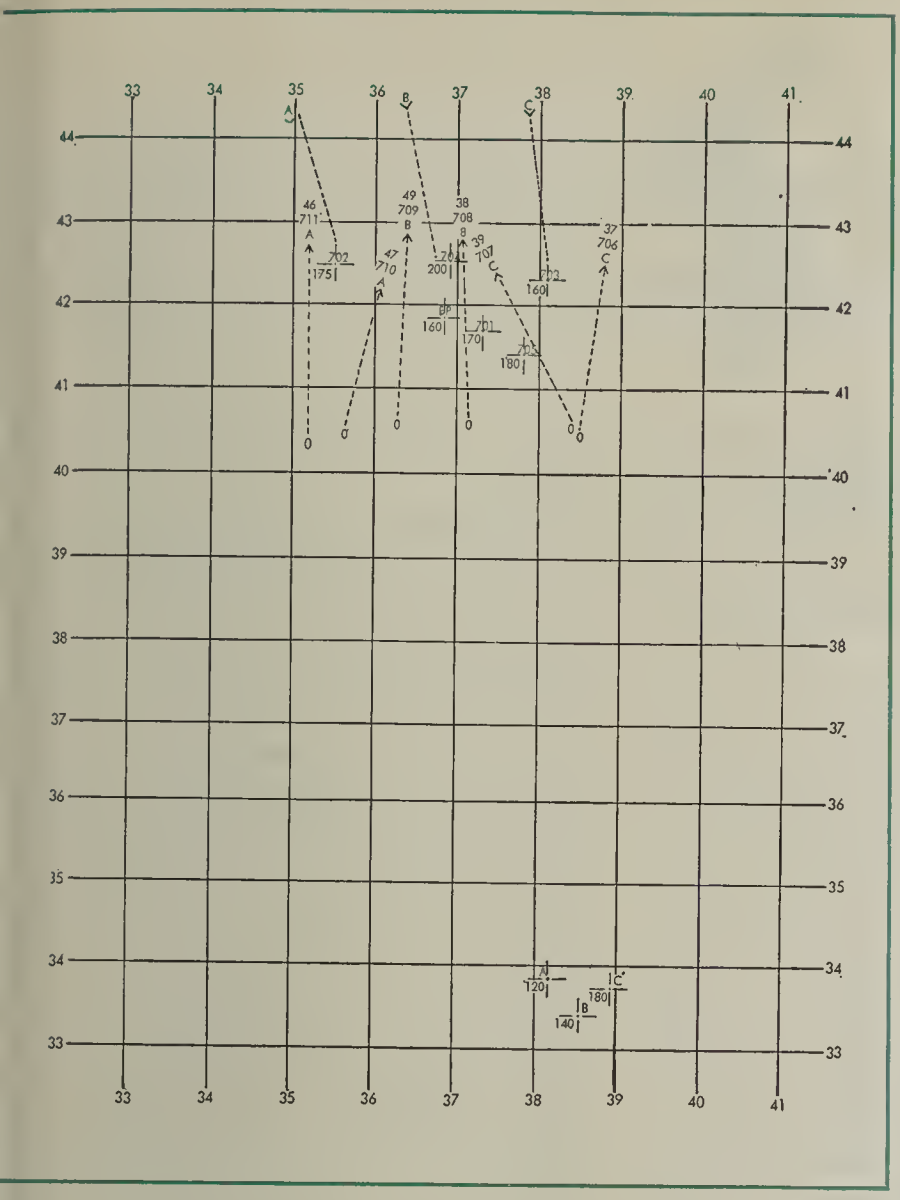


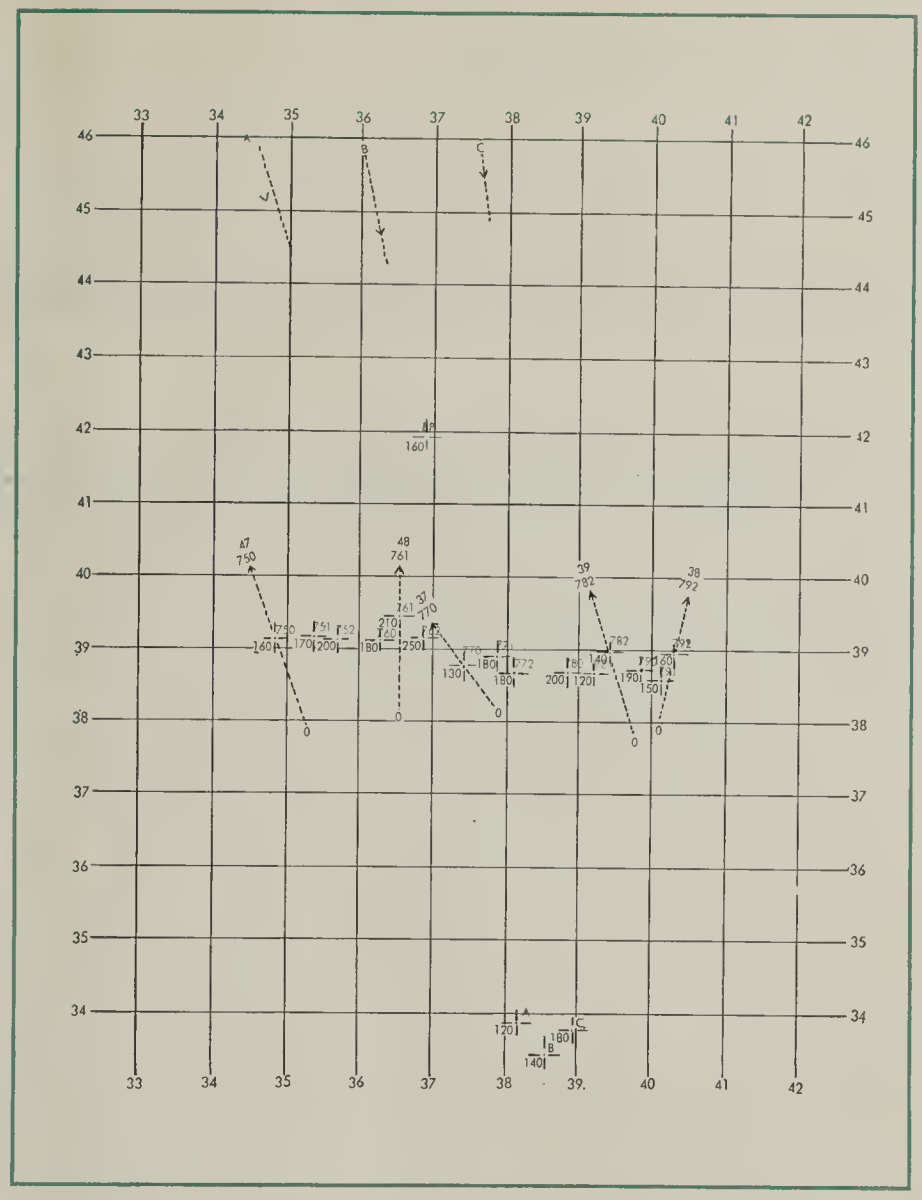
The maximum number of missions simultaneously processed and fired by the 77th Field Artillery Battalion was 11 missions. This was later when the 8th Cavalry Regiment had been committed with the 99th Field Artillery Battalion as its direct support battalion, and the 936th had been given a general support mission reinforcing our fires.

During these operations, it was found that when several missions were fired in the same general vicinity on the same firing chart, some time was lost in juggling the target grids and pins, which of necessity were stacked up.

IN order to eliminate this delay and confusion, we modified the present target grid system. The problem was to eliminate the possibility of having two or more target grids on different azimuths overlapping and obscuring portions of other grids. A secondary problem was to eliminate the possibility of the target grid obscuring a deflection index or even a grid square in which a new target appears.

MAJOR ROBERT E. PLETT, Artillery, and FIRST LIEUTENANT HARVEY T. HECKMAN, Artillery, were respectively S3 and assistant S3 of the 77th Field Artillery Battalion when they prepared this article.





The modification of the target grid system consists of covering the target area with frosted acetate and drawing the observer-target line for each target on the acetate. Shifts are made by using a coordinate square held parallel to the OT line and measuring the observer's shifts on the acetate itself.

In order to facilitate the operation of this system we designed two instruments: a transparent slotted target grid with movable pointer and a transparent plastic cross. Their use is described in detail in the following paragraphs.

The transparent slotted target grid with a movable pointer *(Figure 1)* is made of firm, transparent plastic. The slot is bevelled and the opening is of pencil point width. The movable pointer pivots freely about the center of the instrument. The pointer arm is offset so that one edge runs directly through the center.

The transparent plastic cross has a 1/25,000 yard scale on each of the eight plotting sides *(Figure 2)*. Each arm of the cross has five inscribed orienting lines parallel to the plotting edges; these lines insure the rapid alignment of the cross in the plotting position. In the event that a shift greater than 1,000 yards in deflection or range is received, the orienting lines spaced at 100-yard intervals may be used to extend the range of the cross an additional 1,000 yards.

These two instruments together with the acetate cover insure rapid, accurate plotting of an indefinite number of missions on the same chart.

TO explain more fully the application of this system, let us follow the horizontal control operator as he handles a fire mission. As soon as the mission comes into the fire direction center, he swings the movable pointer to the correct azimuth. He then places the transparent grid on the chart so that the observer-target line runs close to or on the initial plot and the edge of the movable pointer (now correctly oriented) runs along any north-south grid line, with the pointer pointing north. He then draws the observer-target line on the chart by running his pencil along the slot. He identifies the line by marking the target end of the line with the observer's designation (later he will also mark the concentration number and unit to fire assigned by the S3). He now has materialized the observer-target line on the chart and is ready to make a shift from a previous concentration. To make any shift he places the cross on the chart with one of the edges or orienting lines parallel to the OT line. He then measures and plots the shift.

In the event that the target is designated by coordinates or polar plot, he will plot the target first, give the necessary data to the computers, and then draw his OT line as described above. *(Figure 3 shows a chart set up with six simultaneous will adjust missions being fired.)*

Another excellent application of this acetate-modified grid system is in the preparation of normal and alternate barrages and key defensive fires for nighttime defense *(Figure 4)*. The concentrations are plotted, data are prepared, and the OT lines are drawn on the chart on the correct azimuth. This permits rapid application of shifts by the observer and avoids harassing the observer (when under fire or attack) to ask him for the azimuth which should already be a matter of record in the fire direction center. *Figure 5* is a suggested concentration record which keeps pertinent data recorded for each mission. Since illumination concentrations are from 155 howitzer units, their concentration numbers differ. By using this record, the observer need only call for illumination on his own unit's concentration number and not have to recall additional illumination concentration numbers.

We have successfully used this acetate-grid system, firing 11 missions at the same time on two firing charts with absolutely no confusion.

One Artillery

There's new vigor in the effort to integrate the training and cross assignment of artillery officers

The drive to make one arm out of the two artilleries has had a new shot in the arm.

The impetus for a more fully integrated artillery comes from the Department of the Army. General J. Lawton Collins, the Chief of Staff, has pushed the idea of one artillery ever since his days as Vice Chief. Under his forceful leadership, methods of making integration effective are being actively pursued.

The people at Army Field Forces are continuing a study of the problem. General Hodge is expected to come up with recommendations for a long-range solution before very long. Meanwhile the effort to cross-educate AAA and FA officers has been stepped up at the two branches of the Artillery School at Fort Sill and Fort Bliss.

Integrated Courses. First there is the integrated Advanced Officer's Course which has been running since 1947 (except for 1950-51, the first year of Korea). This year's Advanced Course is for 36 weeks and, like all integrated courses part of it is conducted at Fort Bliss and part at Fort Sill.

But to get the cross-education program rolling on a broader basis and complete the career pattern for artillery officers, an integrated Battery Officer's course is also now in session. This course of 32 weeks is for officers with seven years of service or less. Since it partly duplicates the 15-week Associate Battery Officer's courses for FA officers at Sill and AAA officers at Bliss, officers who have attended either of these Associate Battery Officer's courses in the last two years were not eligible for this year's integrated Battery Officer's class.

In addition to these two courses, transition courses of eight to ten weeks are now being set up, one at Fort Sill for transition to ground artillery, the other at Bliss for fundamental training in antiaircraft weapons. These will give officers the background knowledge they need to serve in artillery units of a type they are unfamiliar with. An officer previously trained in ground artillery, for example, can complete his integration by taking the AA transition course at Fort Bliss. The transition course can also be taken by, say, an infantry officer, to give him basic training in the type of artillery for which he takes the course. Officers under the rank of colonel may be placed in transition courses. Successful completion of the course will relieve an officer (above the rank of second lieutenant) from the current stipulation requiring his completion of an associate course. Officers who complete the transition course will be considered as meeting requirements for overseas service.

As a general policy, only career officers are eligible for the integrated courses.

Assignment. Until more officers have been cross trained, officers of one type of artillery cannot be freely assigned to a unit of another type. But the Career Management Division has been alerted to the increased desirability of cross assignment and cross assignment will be the rule as soon as officers now attending integrated courses finish their courses. But since the extent of cross assignment depends on the number of units of the several types of artillery that the Army has in being, cross assignment may not be possible for all officers of all ranks who do complete an integrated course.

Foot-dragging. It is no secret in the Pentagon and in the field that certain things have hampered the integration of the two types of artillery. Some say that the techniques of the two are so different that one officer cannot be expected to master both—that there simply isn't enough time in a single academic year for officers to get more than a fundamental grounding in the functions and methods of operation of both types of artillery. To sum up these opinions, it is fair to say that some officers think integration would result in a gradual lowering of the high standards of tech-

Where artillerymen are trained: Commemorative marker in front of McNair Hall at Fort Sill and a vista of the new administration building at Fort Bliss.





nical competence of both types of artillery.

Those who favor the integration have numerous arguments. Some of them have observed that there is a much more similarity between AAA and FA today than there was between seacoast artillery and antiaircraft artillery at the time the Coast Artillery took over the AAA mission. Not many years ago officers of the Coast Artillery Corps had to train and command nearly as large a variety of weapons and units as exist today in both artilleries. What's more, they did it, and did it thoroughly and well.

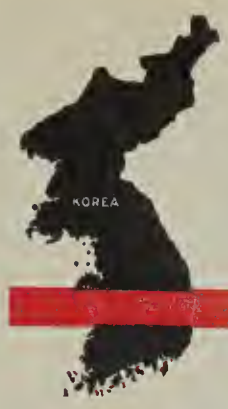
Other advocates say that there are no grounds for fearing that specialization would be lost and technical competence impaired by integration. There will always be officers who will specialize in a certain phase of artillery, just as there always have been. But they believe the specialization should be indicated by the officer's MOS and not by his insignia of arm.

Proponents also say that integration would save manpower and money. They remember that at the beginning of our entry into World War II there was a compelling need for AAA outfits. But later in the war, after the AAF had attained control of the air, the need for large numbers of AAA units decreased. And at this same time the need for FA units and replacements was increasing because the full power of our attack was in progress in Europe and the Pacific. If the artilleries had been integrated in 1944 the conversion of AAA batteries, battalions and groups into FA batteries, battalions and groups could have been more easily effected.

Many AAA officers, particularly of field grade, are strong supporters of integration because they think AAA officers have been unjustly deprived of opportunities to rise to high combat command, which of course, is not a matter that can be blamed on any aspect of the artillery question. They believe that full integration will give them a better chance to rise to high command of combined arms.

Towards Unity. There are soldiers who foresee the day when the splinters of arms and services in the Army will be smoothed away and disappear until the Army becomes a sound and seasoned unity. If the artilleries can be successfully integrated, two such splinters will be gone and there can be hopes that the example will lead to further integration.

It's good to see how many artillerymen of good will are pitching in to reach a solid solution.



REPORTS AFTER ACTION

The supporting arms and services in Korea

ATTEMPTED EVACUATION OF TANKS

Narrators: **Lt. Col. Herbert W. Wurtzler, Capt. Gentle S. Banks, Lt. Leroy Ingram, M/Sgt. William T. Wilson, Sgt. Richard L. White and Captain Earl M. Friday**

Historian: **Capt. Edward C. Williamson**



In the latter part of November 1950, a retrograde movement was taking place along the whole UN front. The bitter fighting of these days, and the casualties in men which resulted, are generally well known. Something of the cost in equipment and matériel should be mentioned.

The 44th Ordnance Depot Company had occupied the buildings of the Military Academy of the North Korean Army in Pyongyang for some weeks prior to the retreat. The fifteen to twenty acre drill field was used as a collecting point for disabled ordnance equipment. Here were massed for repair 30 or more tanks, 500 vehicles, an eight-inch howitzer, and three or four 105mm howitzers. None was operational. There were also 2,000 boxes of engines, transmissions, differentials, and transfer cases.

The 44th Ordnance Depot Company began its evacuation with insufficient transportation to move even its organic equipment. The collecting point was closed, nothing more was accepted, and every unit had to get its disabled equipment to safety as best it could. There was little hope now for anything stored or disabled in Pyongyang. On 2 December, the gates of the collecting point were thrown open and cannibalization invited. Demolition crews later destroyed what remained.

CAPTAIN EDWARD C. WILLIAMSON was a member of the 4th Historical Detachment, EUSAK, when he prepared the study on which this article is based.

THIS IS ANOTHER in the series of after-action reports covering the work of supporting arms and services in Korea, prepared by Army historians through interviews. They are published in the COMBAT FORCES JOURNAL by permission of the Office of the Chief of Military History, Department of the Army.

The retrograde movement brought the 57th Ordnance Recovery Company of I Corps to Pyongyang and it, too, settled at the Military Academy. The normal mission of the company was to provide battlefield recovery of tanks, and to augment the recovery facilities of corps and divisional ordnance units. Capt. Willard Baker was company commander. Even though the men of the 57th were quartered indoors they were very uncomfortable, for the buildings were drafty and the men had not yet received their winter clothing.

In spite of the improbability of evacuating the equipment already in Pyongyang, the 57th Ordnance Recovery Company still attempted to help units which were having difficulties. At 1600, November 29, Captain Lawrence, motor officer of the 6th Heavy Tank Battalion, rushed into Captain Baker's CP and excitedly reported that he had nine tanks limping down the Sukchon and Sunchon roads. Captain Baker turned to his operations officer, Lt. Gentle S. Banks, and said, "Do you think we can help them?" Banks replied, "I think so, Cap'n."

While Baker and the mess sergeant got Captain Lawrence some food, Lieu-

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tenant Banks called Lts. Robert L. Brown and Leroy Ingram to the motor pool. After the three officers had checked the recovery equipment, Banks assigned Ingram to the Sunchon MSR and Brown to the Sukchon route.

Brown and Ingram moved north with five tractors. Their greatest problem was the southbound traffic. The tank transporter tractors crowded the road as they moved along. At 1900, a colonel of the 5th RCT stopped Ingram. Although the road at this point was seventeen to eighteen feet wide, the colonel informed Ingram, "This is a tactical withdrawal. Pull over and give the traffic going south the right of way." Ingram halted his tractors for about twenty minutes, but at a convenient break in the traffic he moved on. On the way he heard slurring remarks from individual drivers, but was not halted again. At 2300, nine miles north of Pyongyang, he discovered some of the ailing tanks. The drivers, cold, tired, and dispirited, had pulled off the road and started a fire.

On the Sukchon MSR, Brown made one halt because of a traffic jam. At 2130, thirteen miles north of Pyongyang, he met the crippled tanks.

As long as possible the lieutenants let the tanks limp along, then towed them where they could go no farther. At Pyongyang the tanks crossed the Taedong River and went to the Taedong marshalling yards where the tanks and their crews were left. Both tank groups reached the railroad yards by 2400.

TO get the tanks loaded and dispatched, the 57th called the 8046th Ordnance Field Group and requested that coordination and details be arranged. The following morning (30 November) Ingram and Banks went to the rail transportation officer to check the availability of flatcars for the evacuation of the tanks of the 6th Heavy Tank Battalion. Here Banks learned that no arrangements had been made, that loading facilities and cars were not available at the Taedong station, and that the RTO personnel didn't care much about the fate of the tanks. As a result, Banks decided to move the tanks to Sadon Station—a small marshalling yard five miles east. En route the lead tank damaged a small bridge, and the convoy had to halt until the engineers made some hasty repairs. The march was completed by 1130, then the ordnance tractors returned to the Military Academy and brought their organic trailers across the Taedong River. It was now essential to get the 57th's own evacuation

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under way for the Class 50 bridge was soon to be removed.

At Sadon Station a Transportation Corps officer, Lieutenant Fluker, was acting-RTO. He informed Banks that Eighth Army G4 had given the Air Force priority in loading at Sadon Station. The Air Force had an assortment of equipment at the yards, some vehicles, but a lot of items like mess tables, Korean chairs, and office equipment. Banks pointed out to Fluker that most of the Air Force equipment was boxed and could be loaded without tying up the only ramp.

Fluker replied, "In spite of the fact that you need the ramp to load the tanks, you don't have any cars anyway." Banks answered that if he could obtain cars he would be able to start loading at once, but once the Air Force began they probably would not give up the use of the ramp. Fluker agreed to confer with the Air Force lieutenant colonel in charge of loading to see if he was willing to leave the ramp open for loading tanks. Banks heard the colonel state flatly that he had a priority and he wanted both the ramp and all the cars. From the tone of the conversation Banks did not figure that it would be worth while to speak to the colonel personally. The Air Force used the ramp.

Nothing more in the way of loading could be done at this time, but at 2000 hours, 1 December, a switch engine arrived with six flatcar loads of replacement tanks which were consigned to the 6th and 70th Tank Battalions. The ramp was now available, for the Air Force had pulled out of the Pyongyang area, abandoning much of its equipment. The ordnance company helped unload the replacement tanks—planning to re-use the flatcars to evacuate the disabled tanks. But two of the replacement tanks could not be started. They too had to be reloaded for evacuation. These, with five other tanks which had been brought to the Sadon yards from the collecting point, made a total of sixteen tanks (15 M46, 1 M26) to be loaded.

After the replacement tanks had been unloaded the ordnance company began loading. The night was dark and cold, and as a result only two tanks were loaded during the entire night. The next morning (2 December) the loading proceeded more rapidly, especially since some of the tanks to be evacuated were started and pulled others up the ramp and onto the flatcars. The operating tank then moved forward to a second flatcar and two tanks were thus loaded in one ramp operation. Even so, it was slow work, for it was a problem finding cars and moving them to the ramp. In this operation flatcars were used that normally would have been considered too light. All paper work was dispensed with and the sixteen tanks were loaded by 1130, 3 December. It was fortunate that the work was completed at this time, for the 57th Ordnance Recovery Company was under strict orders to leave the Pyongyang area not later than 1200.

Banks notified Fluker when the tanks were loaded and ready to be moved south. At the same time he stressed the importance of getting the tanks out. It was imperative that the tanks not fall into enemy hands because of secret features on the M46. Banks gained the impression, however, that the tanks would not receive a sufficiently high priority of movement. Consequently, he attempted to telephone the I Corps ordnance officer, Lt. Col. Herbert W. Wurtzler.

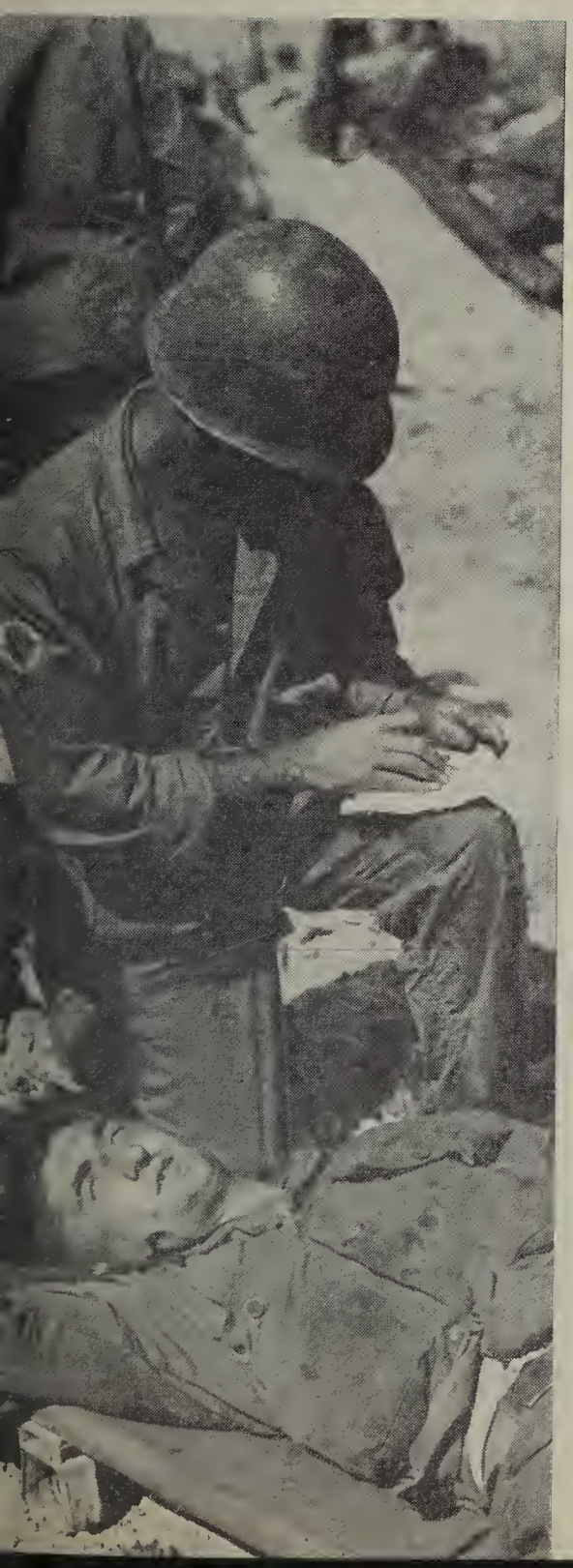
Though Colonel Wurtzler was not at his office the message was relayed to him. He notified Eighth Army headquarters that the tanks were loaded and ready to go. They assured him that every effort would be made to get a locomotive to pull the tanks south. The RTO at Sariwon personally informed Colonel Wurtzler that he would send a locomotive to Sadon Station. Three engines were dispatched on 4 December, but apparently the priority on moving tanks was not high enough to claim any of the locomotives. On 4 December the last train went south from the Pyongyang area.

On 6 December, I Corps ordnance section received a report from the Air Force that it had destroyed sixteen American tanks near Pyongyang. That must have been the fate of the tanks which the 57th had tried so gallantly to save.



The Killed, Wounded, Injured and Sick of World War II

A review by G. V.



THERE may be a better discussion of it later, some years from now. But this book will be the bible on World War II casualties for years to come. The authors have put an enormous amount of work into it, and their analysis of the available figures is quite unbiased.

I will make just one fairly major criticism. I think the authors duck away a little too fast from the big arguments about casualties. For example, are the ground combat risks greater than the risks in the air? This one they refuse to get into at all—on the grounds that no data exist on the two casualty sources which can be accurately compared. This would seem to support the opinion that such statistics as the Air Force witnesses gave to Congress last spring are probably without sufficient foundation.

We must remember that this is essentially a medical book—written by a former Medical Administrative Corps officer who is a member of the National Research Council, and a former Medical Corps officer, now professor of surgery at Baylor University's College of Medicine—and that it is published by a medical publisher. The slant of the book is therefore very much toward the use of the information in it by the Medical Services, and it is invaluable to them. And we should therefore be thankful that the writers have paid as much attention as they have to the matters of deepest interest to the combat soldier.

Where possible, figures are given for previous wars as well as World War II. The authors are careful to say that the older information is not precisely comparable. But the differences shown between past and recent wars are so great in several important respects that the advances of military medical science and efficiency are not to be doubted. Here are two principal points. Deaths per 1,000 men per year from enemy action were over three times as great in the Civil War as in World War II. These figures include the killed in action as well as the wounded who died later. True, a bigger part of the troops were in the lines in those days; but when we also note the difference in these wars between the wounded who died we have even better evidence of the medical improvements. Over three times as many died in the Civil War, and nearly two times as many in World War I, as died in World War II.

BATTLE CASUALTIES: Incidence, Mortality, and Logistic Considerations: By Capt. Gilbert W. Beebe and Col. Michael E. De Bakey. (Forewords by Major Gen. R. W. Bliss, The Surgeon General, U. S. Army, and Brig. Gen. Albert G. Love, U. S. Army (retired).) Charles C. Thomas, Publisher. 275 pages; 100 statistical tables; 37 graphical diagrams; Glossary of terms and abbreviations; $10.50.

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The disease figures are additional proof. Deaths per 1,000 men per year were twenty-seven times as great in World War I and a hundred and eleven times as great in the Civil War (figures available for the Northern armies only).

IT is also especially interesting to find that certain over-all figures for wounded were much greater for World War I than for World War II. In the AEF of the First War, the number of wounded per 1,000 strength per year for the duration of the war was over twice as great as for the European Theater in World War II. But again we remember that in the First War a greater part of the troops were up front.

Data for the different branches of the Army bear out much of what has been estimated or announced in the past.

In all theaters, taking all arms and services, the number of wounded per 1,000 per year was as follows: enlisted men, 71.8; officers 56.4. On this page is a table from the book which shows a breakdown by branches, with the European theater given separately because the figures there were so much higher.

The cavalry figures, of course, are for the relatively small number of units in the war which still carried the honored cavalry designation, including the 1st Cavalry Division. The comparatively high figures for field artillery officers give a clear indication of the front-line participation by artillery forward observers and others. The figures for Air Corps officers as compared to enlisted men indicate the large proportion of officer flyers.

So far as different parts of the infantry are concerned, the authors give several breakdowns that show what a great difference there is between front-line and other infantry duty. For every 100 riflemen wounded, 66 automatic riflemen were wounded, and 48 squad leaders, 37 platoon sergeants, 33 litter bearers, 32 ammunition handlers, 27 messengers, 17 surgical technicians, and 8 cooks. When we figure that there was one platoon sergeant for every 230 or so riflemen, it is plain that platoon sergeants were hit about ten times as often as riflemen, and squad leaders about five times as often. Remembering also the relative fewness of litter bearers and messengers, we see that these men were hit at least as often as riflemen. Cooks, too, come up pretty close to the rifleman, but then some cooks fought a lot.

UNHAPPILY there are no figures for small units as such, whether armor, artillery or infantry. The smallest unit considered is the regiment. On the average, ten times as many regimental troops were wounded per day as division troops and twelve times as many regimental troops as corps or army troops.

The comparative theater and campaign figures are also interesting. The highest per day per 1,000 casualty rates by far of any battles were those of Tarawa and Iwo Jima with Tarawa three times as great. But in these battles the percentage of fighting troops was high and that of supporting troops low, and the fighting period relatively short and hot. Except for the high Marine figures in several island battles and the high Army rates on Eniwetok and Makin, the wounded rate was consistently higher in the European theater than in the Pacific. And remarkably, the Army rate for killed and wounded for two divisions that fought the last ninety days on Guadalcanal was slightly higher than that of the Marines who were there for some 100 days before the Army. This is still further evidence that the several historical accounts which say the Army merely cleaned up after the Marines are completely inaccurate. In the second phase, the two Army divisions (and one Marine regiment) captured the remaining five-sixths of the island—and suffered a higher casualty rate.

The book also contains a lot of material on numbers and percentages wounded by different enemy weapons. In the First and Third Armies (probably indicative of the rest) over twice as many men were wounded by shell fragments as by bullets, and shellfire wounded fifteen times as many as bombs did. The bullet-shell fragment figures are a reversal of World War I in which bullets wounded twice as many as shell fragments did, despite the heavy concentrations of artillery. Improved artillery weapons and methods and the great increase in number of mortars and tanks are all important factors in this shift to the shell as the most effective weapon. In the Pacific, the ratio of shell to bullet casualties was somewhat lower (about 150 to 100), but in the Mediterranean theater shell-caused casualties were five times as great as bullet casualties. But bullets are still the more deadly of the two, killing a slightly higher percentage of men hit.

THERE is a great deal more data than the few items I have recounted and the book concludes with an excellent analysis of the light cast by the new data on several logistic problems. These are by no means solely of interest to the medicos. They are stated in proposition form; for example: "If combat soldiers with simple though extensive wounds can receive adequate and prompt initial surgery and then be evacuated to fixed beds where they may remain approximately fifteen days, a high percentage can be returned to duty status."

Behind these cold figures lie the total tragedies of war. But within them, too, is the experience, now recorded and analyzed, through which recovery rates can be raised still higher. Indeed this is actually happening in Korea.

In conclusion, it seems a pity that the cost of preparing the tabular and other data in this book was so high that the publishers must put a price on it of $10.50. True, that is not a high price as *medical* books go, and this is a medical book, though one of wide interest to all kinds of other soldiers than the medical ones.

WOUNDED PER THOUSAND STRENGTH OVERSEAS PER YEAR BY ARM OR SERVICE, DECEMBER 1941 THROUGH MARCH 1945, ALL THEATERS AND ETO

Arm or Service	All Theaters		ETO	
	Officers	Enlisted Men	Officers	Enlisted Men
All Arms and Services	56.4	71.8	87.3	123.6
Infantry	251.0	264.9	422.2	454.4
Armored	—*	228.5	—*	327.7
Cavalry	165.1	163.1	235.7	191.6
Field Artillery	88.1	50.7	124.3	66.8
Air Corps	35.9	9.9	44.3	12.0
Chemical Warfare	31.0	29.6	35.5	34.2
Medical Department	9.2	26.7	13.2	41.2
Engineers	28.0	21.8	43.6	33.7
Coast Artillery	10.6	9.7	24.1	24.8
Other	4.8	3.8	6.4	4.5

*During World War II officers assigned to armored units were carried under such arms as Infantry and Cavalry, and the designation "Armored" was used only for enlisted personnel.

Three Cold War Victories

The transport airplane has won three cold war campaigns, and its ability to do so is highly significant to the Army

Defense leaders from Secretary Lovett on down have been stressing that our armed forces are faced with two critical tasks. The first of these is preparing to win a hot war, should it be forced upon us. The second is to win the cold war we are presently engaged in. The Korean conflict is a hot extension of the cold war and exemplifies how one can become the other by act or design of the leaders of the Soviet Union. To overlook the cold war is fatal. For victory there could put the Soviet Union in an invincible position.

The cold war is new, different and difficult. The problem of building the forces to fight a hot war we know well how to do, and this occupies a large part of our national attention. Yet the force we are building must consist of weapons that can win either hot or cold war. In three cold war victories of the West a weapon in which the Army has an outstanding interest played the stellar role. This weapon is the transport airplane, especially the large-doored, cargo-carrying plane that is so vital in ground warfare. The cold war victories achieved by these planes have been out of all proportion to their production priorities.

The first great cold war victory of the West was Operation Vittles, the breaking of the Soviet blockade of Berlin. During it as many as 178 four-engined C-54s made 13,800 trips a month to keep Berlin and our Army outposts in Berlin supplied. The Russians, who had thought to drive the West from this psychologically important outpost, could and did bar our use of surface approaches to Berlin but they were impotent to stop us from flying in—short of starting a shooting war—and finally they backed down. It was a great moral victory for the West.

Yet the Berlin air lift raised certain questions. Where were the new transports for which the Army and certain sections of the Air Force has been begging since the middle of World War II? Where were the planes with ramps and clamshell doors, the pack-plane with detachable cargo pod, all of which would have tremendously simplified the airlift operation? The Allies had won an impressive victory but the job was made difficult by the lack of proper equipment.

The final week of August of this year saw the same C-54s forging another impressive cold war victory, this time in the critical Middle East. Some 3,000 Moslem pilgrims had found themselves stranded in Beirut, Lebanon, unable to make Mecca in time for the commencement of the Holy Week, when expected commercial air transportation failed to materialize. The United States Ambassador to Lebanon asked the Lebanese government if it would accept U. S. air transportation. His offer was enthusiastically accepted.

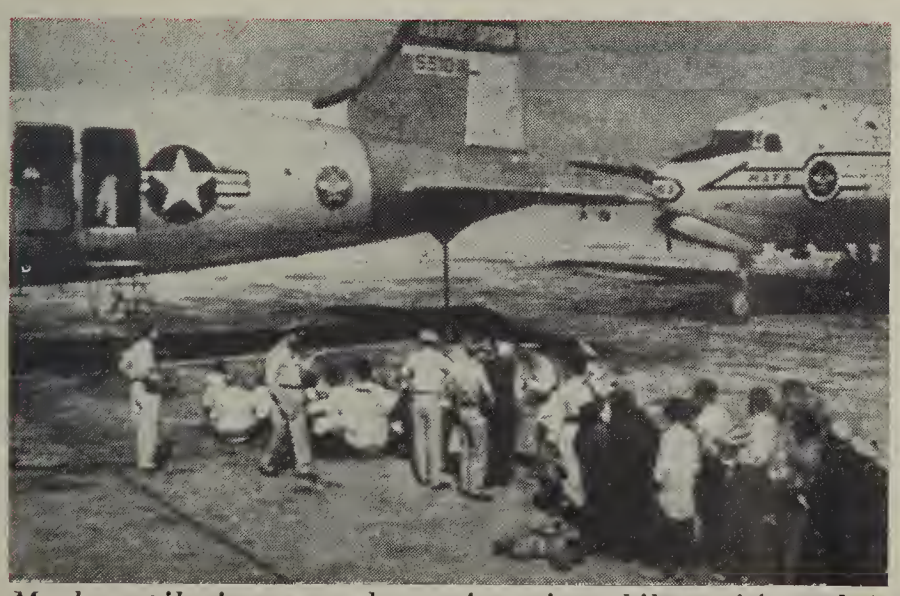
Within three days 14 C-54s were ferrying pilgrims between Beirut and Jidda, a mere 40 miles from Mecca. The rapid coordination between the State and Defense Departments that resulted in the order to send the planes was handled at the Secretary level. The fact that the planes were on their way two days after the cabled request was received from Beirut is an impressive example of how red tape can be cut when speed is essential to a cold war victory. The good will these 14 C-54s produced in the Arab world might mean that the oil of Iran is denied to the Soviet Union.

A third victory of the West is particularly interesting because it involves the transportation of airborne troops by air to seize a cold war objective. At the end of October 1951 the British flew some 5,000 infantrymen in a little less than a week's time to the Suez Canal area, when it looked as if the Egyptians might try to seize the Canal. Here speed was essential. Had the Egyptians been able to grab the relatively undefended canal, diplomatic considerations might have made it impossible to dislodge them. The airborne brigade from Cyprus and the Guards units from Tripoli where able to get to the Suez faster than the Egyptians who had the canal in their own back yard. The situation stabilized and another cold war victory could be credited to the ability of air power to transport men and machines fast.

That is the lesson of all three of these victories. In each the transport plane was the weapon of victory. It follows that if the West is to win future cold war victories it must have adequate air transport.

For the Army, fighting in Korea and standing guard in Europe, air transport is of vital interest. Not only it is a major cold war weapon, its capacity for airborne operations and aerial resupply makes it a major Army hot war weapon also. Here Korea experience is significant. The Army in the front lines in both the cold and hot war has perhaps the greatest stake of any service in adequate air transport.

CAPT. ARTHUR T. HADLEY
Armor—USAR (inactive)



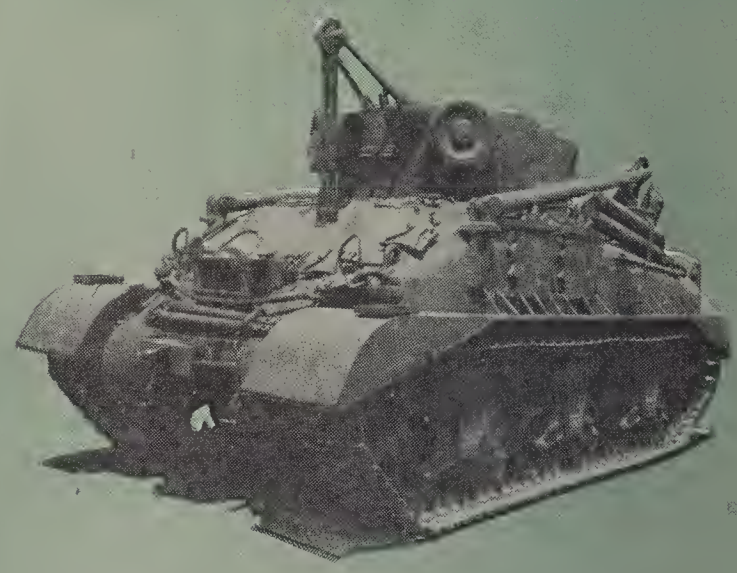
Moslem pilgrims crowd an air strip while waiting their turn to board Air Force transports that flew them to Mecca.

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ARMOR In KOREA

The Maintenance Platoon

Lieutenant Colonel Carroll McFalls, Jr.



Here are some ideas, based on experience, of how a few changes in organization and better equipment can keep more tanks rolling—where it counts—in the combat zone.

IN Korea, the Maintenance Platoon of the 70th Tank Battalion was tested with a heavier volume of work under adverse conditions than any maintenance platoon in the U. S. Army.

The 70th Battalion was equipped with rebuilt tanks of an obsolete model and spare parts were in critically short supply. Unpredictable and rapid variations in weather—from torrential rains in summer to sub-zero cold in winter—constantly harassed its efforts. The rugged terrain and poor roads provided tests rarely encountered in the Second World War. Although organization of the maintenance platoon lends itself to efficient operation, it could not have functioned efficiently under these conditions without highly trained men. Its efficiency depended largely on the knowledge of its individual members. Their "know-how" was the most important single contributing factor to the success of the platoon—and the entire battalion.

The Maintenance Platoon is organized into three sub-units: recovery section, mechanic section, and allied trades section.

The recovery section has two recovery vehicles, M32, with a three-man crew for each, and two 10-ton wreckers with drivers.

The mechanic section is composed of the remaining wheel and tracked vehicle mechanics.

The allied trades section, a good term considering its uses, is made up of two welders, two turret mechanics, an ordnance parts supply man, and a radio repairman. Normally the radio repairman works with the communications section of the battalion, but he is placed within the allied trades section in order to have a single unit which can simultaneously recover disabled vehicles and repair them. The three sections, with the exception of the parts supply man and the radio repairman, are each so organized that they con be separated into two subsections, quickly and without loss of efficiency.

In addition to the platoon, we had the good luck of having the services of the entire tank section of the division ordnance maintenance company. This was because there were no tank companies in the regiments. This made it possible for the battalion to keep the number of tanks it had to send back for repairs to a minimum.

Some improvements or additions would have greatly increased the effectiveness of our maintenance platoon. These include:

The present electric welding equipment in the platoon consists of a Hobert welding machine, mounted on a 2½-ton truck. Sometimes when we wanted to weld a damaged vehicle at the point where it broke down, we found that the 2½-ton truck could not get over the rough terrain. The ¼-ton truck can get over almost any terrain suitable for armor, and so a portable electric welding outfit mounted on a ¼-ton would permit welding operations in practically any terrain and under all conditions of weather. Also a jeep has a much lower silhouette than a 6x6.

Spare parts are a critical item and there is need for an assistant ordnance parts supply man. In the interest of supply economy, and to prevent "moonlight requisitioning," record keeping and parts are kept under lock and key. The only person authorized to issue parts or to draw parts from the supporting ordnance company, is the parts supply man. When he is absent there is no one to issue parts or to draw them. An assistant would solve this difficulty.

The two recovery vehicles need an additional mechanic. A two-man mechanic team for each such vehicle would, of course, permit more rapid recovery operations, especially important under actual combat conditions.

LIEUTENANT COLONEL CARROLL MCFALLS, JR., Armor, commanded the 70th Tank Battalion, 1st Cavalry Division, in Korea. He enlisted in the Army in 1937, was commissioned in 1942, and integrated into the Regular Army in 1947. During the Second World War he served in the 3d Infantry Division as an infantry platoon leader and company commander and as a battalion and regimental operations officer.

While mentioning the recovery vehicles, it must be said that the M32 is *inadequate* as a battlefield recovery vehicle. Its tracks are too narrow to give sufficient flotation. The horsepower is too low to enable the vehicle to retrieve mired tanks or to tow partially disabled tanks across difficult ground. We found in nearly all instances that it was far more satisfactory to use another tank or even two to recover tanks that were mired down or seriously disabled. This procedure cannot always be used, nor is it particularly recommended, when the tanks are needed for a tactical mission. But if the M32 cannot do the job and if extra tanks are not available, the business of recovery has to wait until the enemy permits us to take care of our maintenance. Further, the winch of the M32 is not strong enought to do the jobs expected of it. This battalion has lost recovery vehicles on several occasions and this adds up to a double loss—the tank and the M32.

It is foolish to expect that a vehicle which cannot get across difficult ground *alone,* to do it while towing a dead weight equal to its own.

What is needed is a vehicle with great flotation capabilities, and with a high horsepower, designed *from the ground up* as a recovery vehicle. The use of the chassis or suspension system of any of our present tanks as the nucleus for a recovery vehicle will only result, as it has in the past, in a hybrid vehicle which is completely unable to accomplish the mission for which it is intended. Military characteristics necessary for a recovery vehicle should be studied and developed, and a vehicle designed and built for that specific purpose.

One example of a needed change is the lowly vise. On the present recovery vehicle the vise is mounted on the right front fender. Why can't it be put inside the vehicle where the user is protected from enemy fire? The following are the primary military characteristics which I consider necessary in a specially built recovery vehicle:

(1) Armor protection, to include overhead protection for the crew.
(2) Greater horsepower, utilizing the same *type* engine as standard tanks in order to reduce parts inventories.
(3) Wider tracks to give greater flotation capabilities than the tanks which are to be recovered.
(4) A large enough working space inside the hull of the vehicle.
(5) A more powerful winch.
(6) A hydraulic A-frame.
(7) Strong towing pintles.
(8) Maximum tool installation *inside* the vehicle (the vise is *one* example).
(9) Minimum weight commensurate with the above characteristics.

A recovery vehicle built around these ideas, and after constant consultation *with combat units using the vehicle,* would tremendously ease recovery, evacuation, and maintenance. This is as much a dollar problem as any in the Army. It is false economy to have a mass-produced vehicle designed for a job it cannot do.

It's the job of the maintenance platoon to keep these tanks rolling and firing.



CIVIL CONTROL OF MILTARY POWER

(Continued from page 21)

questionably accepted by every American has surely been underscored, in most dramatic fashion, by the relief of General MacArthur. Certainly it should now be possible to comment, without the risk of fanning once more into flame such embers of that incident as survive, that it never occurred to any of that eminent soldier's supporters, least of all to himself, that it was either appropriate—or possible—for him to defeat the President except through constitutional means and the machinery of conventions and elections. That circumstance alone should be dispositive of fears of military upheaval. Indeed, even the amenities are more carefully observed as the nation grows older: General Eisenhower resigned from the Army after his nomination; General McClellan did not resign until after losing the election in 1864; and General Scott remained on the active list notwithstanding winning the nomination and then losing the election, in 1852.

The crisis that confronts us, the very real specter of the garrison state, is not of our making; our present armaments are dictated by the need for survival. It were well for Dean Smith and the Chicago faculty to grasp this unpleasant but basic fact, and to recognize as well the responsibilities which are ours as the strongest nation of the free world. Specifically, although in 1918 our Army was placed under the command of a French marshal, in 1944, the British Army (and what we had equipped of what was left of the French) was placed under the command of an American general. Similarly, whereas in 1918 we contributed a squadron to the British North Sea Fleet, in 1945 British ships were serving as a portion of our Pacific Fleet. When the nations of Europe campaigned against the Boxers in 1900, the overall commander was a German field marshal; today American officers command UN forces in Korea, and NATO forces in Europe.

The eighteenth century issue of civilian versus military has long since been settled in our country. What we need today is intelligent guidance to assist us in finding workable solutions for the insistent twentieth century issues of national and international organization for military strength and efficiency. In that field, Dean Smith's book, interesting and stimulating though it is, affords us no help at all.

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FRONT and CENTER

Civilian Committees

The trend seems to be towards more and more commissions and committees of citizens armed with the authority of the Secretary of Defense to look over the shoulders of military commanders and civilian administrators of the military departments.

In recent weeks Mr. Lovett has announced he will establish an advisory commission of 10 civilians and one retired general officer to review tables of organization and equipment of the armed forces.

It is expected that Mr. Lovett will also appoint a civilian commission to study the problem of incentive and hazardous duty pay.

Both of these moves were recommended by the Preparedness Subcommittee of the Senate Armed Services Committee.

The Johnson Subcommittee has also recommended the appointment of a committee to study the nation's air strategy, aircraft research and development and design procedures. It also recommends the appointment of a "czar" to speed up military aircraft production.

Other civilian groups are already in existence and others may be created to study other military problems. For an exploration of what this can mean to the armed services and the nation see the article on page 17 of this issue.

Army Aircraft to TC

Procurement, supply and maintenance of all Army aircraft—fixed-wing and helicopter—have been transferred from Ordnance Corps to the Transportation Corps. This gives a using service—TC operates transportation helicopter companies—responsibility from the battlefield back to the factory.

Other arms and services using either fixed-wing planes or helicopters will receive them from the Transportation Corps which will also be responsible for their maintenance and repair.

All Ordnance units and individuals engaged in Army Aviation functions will be transferred to the Transportation Corps by 30 June 1953.

1954 Budget

This is the season of the year when the Department of Defense goes over the separate budget proposals of the Army, Navy and Air Force and prepares to submit them to the Bureau of the Budget, the President and, through him, to Congress.

What the new budgets of the three services contain is unknown, but the probabilities are that they are comparable to the 1953 appropriations voted by the Congress.

The Air Force, strong for more money to build up to 143 wings, is expected to make an all-out effort to get a larger chunk of defense dollars.

The Navy wants four big carriers of the *Forrestal* class—two have been authorized and are under construction.

The Army, which had to cut back its manpower program in fiscal 1953 and couldn't increase its active force by one infantry division as it had hoped, will have to face the ever-present yearnings of congressmen and the American public for smaller forces and greater numbers of special weapons.

Congress made a deeper cut in the Army's 1953 request than it did in the requests of the other two services. Here are the figures:

	President's Budget	*Congressional Appropriation*	*Amount of Reduction*
	(in billion dollars)		
Army	$14.3	$12.2	$2.1
Navy	13.9	12.8	1.1
Air Force	22.5	21.1	1.4
Totals	$50.7	$46.1	$4.6

(These figures do not include appropriations for the Department of Defense and certain other military agencies. Nor do they provide for the war in Korea. Funds for that will be requested in a special message to the new Congress.)

The services this year have had expenses not recognized in the original budget: combat and mustering-out pay and the "cost of living" raise. Unless these costs are covered in a separate appropriation the Army will indeed be short of funds.

As Mr. Pace recently noted, the two-year service requirement and Korean rotation policy is a deep and costly drain on the Army. He said that the Army will lose about 750,000 men this fiscal year. It has been estimated that it takes 100,000 personnel spaces to keep the Korean rotation procedure in operation. Rotation in other parts of the world has had to be slowed down to maintain the Korea rate. The drain on an Army of 1,552,000 by these personnel policies is very evident.

Enlisted MOSs Merged

By merging related enlisted military occupational specialties the Army is simplifying its career fields. To do this "supervisory" and "journeyman" MOSs are now merged into one MOS, using, in most instances, the title of the former supervisory position. The first digit of each enlisted MOS now indicates the highest pay grade and supervisory level attainable within that specialty but the pay grades held by men in those positions indicate their degree of skill and responsibility.

Here are three examples of the merging of related skills:

Old Code	*Old Title*	*New Code*	*New Title*
	Armored Career Field		
1616	Armored Operations Chief	1616	Armored Operations and Intelligence Specialist
4616	Armored Operations Assistant		
1736	Armored Intelligence Chief		
	Artillery Career Field		
1577	Chief Artillery Survey Spec.	1577	Artillery Survey Specialist
3577	Artillery Survey Spec.		
5577	Artillery Rodman & Tapeman		
	Infantry Career Field		
1745	Light Weapons Infantry Leader	1745	Light Weapons Infantryman
4745	Light Weapons Infantryman		

The Infantry School

The 1952-53 academic year has begun at The Infantry School with 386 U.S. and 24 Allied officers enrolled in the 34-week advanced course.

Altogether TIS expects to give instruction to some 50,000 students during the academic year.

About 6,000 will graduate from the 22-week OCS classes of which 40 are scheduled during the year.

Some 5,000 company grade officers will attend 25 scheduled 15-week associate courses.

The Airborne Department will graduate 15,000 paratroopers from 50 three-week basic course classes.

About 750 National Guard and ORC field officers are expected to attend three-month associate advanced courses.

The Ranger Department will train 900 men at Fort Benning, Eglin AFB, Fla., and the mountain camp at Dahlonega, Ga. Nine Ranger classes are scheduled.

The Automotive Department anticipates the graduation of 400 officers and men.

The Communications Department will graduate about 1,000 students from the three courses it offers officers and men.

The light and heavy weapons Infantry Leader courses of 14 weeks will be attended by 1,600 enlisted men in eight different classes.

Some 20,000 students are expected to enroll for short courses offered by TIS during the academic year. These courses include refresher classes for reservists returning to active duty, orientation courses for personnel from other stations, and special courses for Allied students.

Training Films. TIS has distributed the following films: FB 249 Reducing Enemy Log Bunkers in Korea, FB 7-1677 Regimental Tank Company in Attack, and FB 21-1741 Seeing in the Dark.

Note on FB 249: This film uses animation and live action scenes to show in detail how log bunkers in Korea can be attacked successfully. The film shows the

plan of attack, air and ground reconnaissance, equipment and weapons used, and the tactics and techniques of the combat units.

Permanent Colonels

The Army board headed by General Wade H. Haislip, retired, finished going over the records of the 900 permanent colonels with 30 years of service and five years or more in grade, and submitted its recommendations to the Secretary of the Army.

These colonels were slated for retirement by 30 July 1953 under the "forced" requirements of the Officers' Personnel Act of 1947. Some of these colonels are in their early 50s; others are nearing 60 and would be eligible to retire for age within a few years if kept on active duty. However, an Executive Order has made it possible to retain in service 60 per cent of these officers during the national emergency. By the time this appears the names of the officers selected for retention may be announced.

Among them are a large number of officers with superior ratings both in combat and elsewhere. Among them are many who are now generals (temporary) and who have served as general officers in a superior manner for several years.

The same provisions also affect some 50 general officers (permanent grade) with 35 years of service and five years in grade. They also affect some Air Force colonels and generals.

The Artillery School

New Basic Course. An Artillery officer basic course was re-introduced into the TAS curriculum on 25 August. This is the old basic course, missing from the curriculum since June 1950. During the intervening years, all battery grade officers have had to get along with the Associate Basic Course which lasted 15 weeks. The course was re-introduced because the Artillery officer advanced course was too advanced for many artillery officers. This basic course will develop battery commanders and provide training for junior officers in the elementary principles and techniques of artillery.

Instruction will include the organization and tactical employment of artillery batteries and battalions; principles of defensive and offensive combat; principles of communication and duties of communication personnel; training in artillery gunnery procedures; and general characteristics of FA, AA, and GM weapons and ammunition.



Army Team Sweeps Pistol Matches

The Army swept the 1952 National Pistol Team matches at Jacksonville, Fla., winning the caliber .22 championship with a new world's record score of 1,172 points out of 1,200 possible, and the caliber .38 and .45 matches. Shown above are the members of the caliber .22 team. Left to right: Lt. Col. Tom J. Sharpe, Ft. Sill; M/Sgt. Huelet Benner, Ft. Kobbe; Col. Perry D. Swindler, Ft. Benning, team captain; WOJG Oscar K. Weinmeister, Ft. Knox; and Capt. Ben C. Curtis, Ft. Bragg. Other members of the team included Maj. William Hancock, FECOM; Lt. Col. Chester T. Harvie, Ft. Sill; and PFC Thomas F. Buckmaster, Ft. Rucker. M/Sgt. Benner lost his individual national championship to a newcomer, William T. Toney, Jr., of the U.S. Border Patrol. Capt. Curtis won the National Trophy Match which followed the pistol championships. The Marine Corps team placed second in all three team matches. The Army's second team placed third in the caliber .38 and .45 events and fifth in the caliber .22 competition.

L-20 Transition Training. TAS is conducting transition training in the L-20 Beaver for aviators from various army areas and members of the Department of Air Training, TAS. The Beaver is a metal passenger-cargo plane designed to replace the L-17. The instruction is designed to qualify students to give similar training in the L-20 to other aviators and mechanics.

The L-20 is to be issued to all units authorized multiplace airplanes. Equipped with a Pratt & Whitney 450-hp Wasp Jr. engine, it can carry a pilot and six passengers. It is easily converted to a cargo or "hospital" plane by removing the four back seats. It cruises at about 140 mph, has a range of 500 miles, and carries 95 gallons of fuel. It is equipped with the latest radio instruments, including the omnirange receiver.

Shorts

Release of Reservists. Many reserve officers called to active duty involuntarily can expect to be released during the next few months. This is possible, the Army announced, because many officers on active duty have elected to extend their service, and by the influx of new officers from the ROTC and OCS. The new schedule will cut their periods of service by two or three months.

Medical Service officers and some procurement, research and development specialists cannot be granted early release because the Army lacks replacements in these fields. Other involuntarily called up reserve officers will be released, some by the end of November and others by the end of March 1953. In the latter category are officers who served less than one year during the Second World War while the officers to be released by the end of November served at least a year during the Second World War. Officers now overseas but eligible for release will be started back to the States not later than 30 November.

Snow Storm. Exercise Snow Storm scheduled for Camp Drum, N. Y., in February is designed to test doctrine and training methods in day and night cold-weather operations, defense against atomic, chemical, biological and radiological attacks, airborne operations, aerial reconnaissance of ground targets for tactical atomic weapons, and logistical support training including the use of helicopters and cargo aircraft. Participating outfits will include the 82d Airborne Division and the 278th Regimental Combat Team.

Promotions. Asst. Sec. of the Army Fred Korth, noting that budgetary ceilings had delayed "well deserved promotions," hopes that "within the next few months we wil be able to make these promotions." He said that promotion policy for reserve officers on active duty "will parallel that of the regular establishment" and that "a new reserve promotion system will be instituted for the ORC and National Guard."

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Irons in the Fire





"Army Mule"

The Transportation and Medical Corps are looking forward to the "Army Mule," the latest thing in the Army's transportation pool. The H-25A helicopter, produced by Piasecki, can carry from four to six men plus a crew of two and will be used to haul troops and supplies to the front as well as to evacuate the wounded. Top speed is rated at 90 knots with 70 knots the normal cruising speed. A large rescue hatch (48 inches x 26 inches) is located at the forward end of the cabin in the right side of the floor and a hydraulic hoist permits aerial hoisting of personnel, litters or loads up to 400 pounds through the hatch into the cabin.

Plastic Casts

A new plastic powder, called Melmac Orthopedic Composition, for new type plastic casts has been announced by the American Cyanamid Company. The strength of the new composition is such that casts may be up to ⅔ lighter in weight and even though they make thinner casts, they provide adequate immobility and support within a few hours after application, permitting earlier release of patients. The composition is porous enough to permit evaporation of moisture from the skin and are water resistant.

Bagged Blood

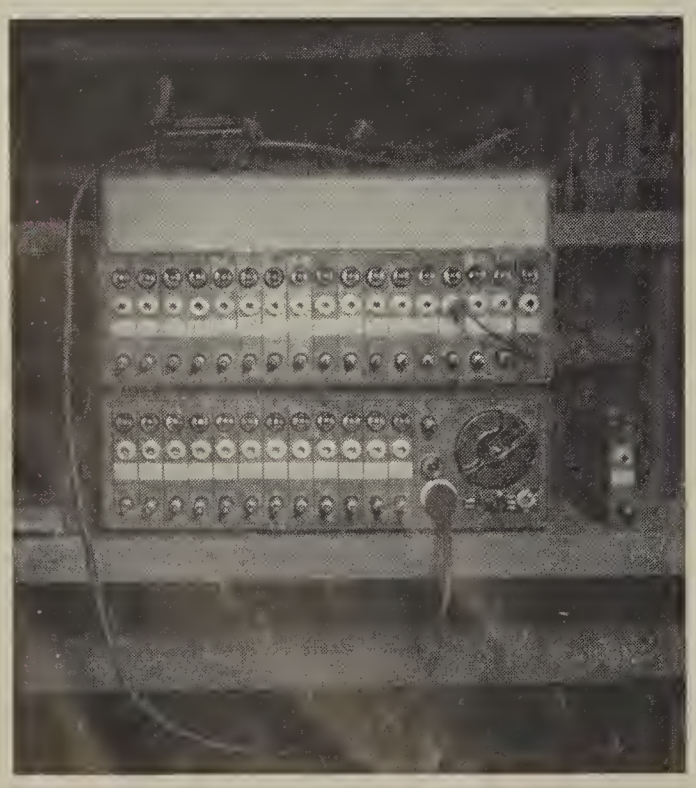
Medical Corps is testing plastic bags as possible replacements for glass containers of whole blood for battlefield transfusions. The bags are less likely to break, and require less shipping space. They also facilitate transfusion by hand or body pressure.

Hot Stove

Quartermaster Corps reports high satisfaction among Korean veterans with the M1950 one-burner stove. Weighing 22 ounces (just half of the Coleman stove), it produces a much hotter flame. The stove's generator will last for 100 hours and can be pumped up by a man wearing heavy gloves. The legs and container supports fold up like the Coleman stove and it fits in the same sort of container.

Capable Cable

Signal Corps is well pleased with the performance of the new "Spiral-4" cable now being used in Korea. Besides carrying three times the load carried by old cable, the new cable has a specially designed connector which makes connections fit tightly together with a twisting motion. Not only does this connector eliminate the scraping, cutting, and taping operations of the past, but it keeps out dust and moisture better and makes a joint as strong as the cable itself.



New Switchboard

The Artillery School is teaching the operation of the SB-22/PT switchboard, the latest item in field wire communication. This portable, monocord, magneto telephone switchboard gives the combat commander a switching central with twice the line capacity yet one-half the weight of older type switchboards (BD-71 and BD-72). It weighs 30 pounds compared to the 50-pound BD-71 and the 70-pound BD-72. It will accommodate 12 circuits, the same capacity as the 72, and exactly twice that of the 71. However, two SB-22s, properly mounted, can carry 29 circuits. The small size of the new board (approximately 18 inches x 12 inches x 6 inches), along with its light weight, facilitates continuous communication in combat situations. It is immersion-proof and can withstand river crossings and rainy weather. Another feature includes facilities whereby the field radio sets may be remotely controlled, and the voice frequency (V-F) teletypewriter circuits can be connected. This increases flexibility in communication. No special mounting equipment is required to operate the SB-22. All equipment associated with each line circuit is mounted in a metal container, called a line pack, which is plugged into the switchboard. Switchboard equipment associated with the operator's circuit, except the headset, is mounted in a metal container, called the operator's pack, which is plugged into the switchboard. The use of these plug-in units permits rapid replacement of defective equipment.



Two-Place Hornet

Army Field Forces is awaiting delivery of two, 2-place ram jet helicopters by Hiller Helicopters. They will be service evaluated at Fort Bragg, N. C. Designated the HJ-1, Hiller-Hornet has a 12-pound ram-jet engine mounted on the tip of each of two 23-foot rotor blades. It has only two hand controls, no foot controls. Its weight is about 360 pounds and it can carry a useful load of 600 pounds at a maximum forward speed of 80 miles an hour. Suggested tactical uses include command liaison, reconnaissance, wire laying, artillery observation and evacuation of wounded. The Navy as the contracting agent ordered two of them for the Army, two for the Navy and one for the Marine Corps. Delivery is expected by June 1953.

Shirt Testers

The Quartermaster Board at Fort Lee, Va., is looking for a lighter cooler cotton shirt and has a hundred officers and men wearing two new experimental fabrics.

Body Armor

The Eighth Army is going to get 25,000 of the Navy-developed body armor from the Marine Corps pending further field test and production development of the Army's experimental armor. The Navy armor uses rigid fibre glass plates curved to fit the contours of the body while the Army type armor is made of 12 layers of flexible, spot-laminated nylon duck. Limited procurement of the Army's armor will continue; 1,400 of the vests were ordered earlier this year. A single type of body armor to be used by all of the services may evolve from continuing research and development efforts.

'Portobel' Trainer

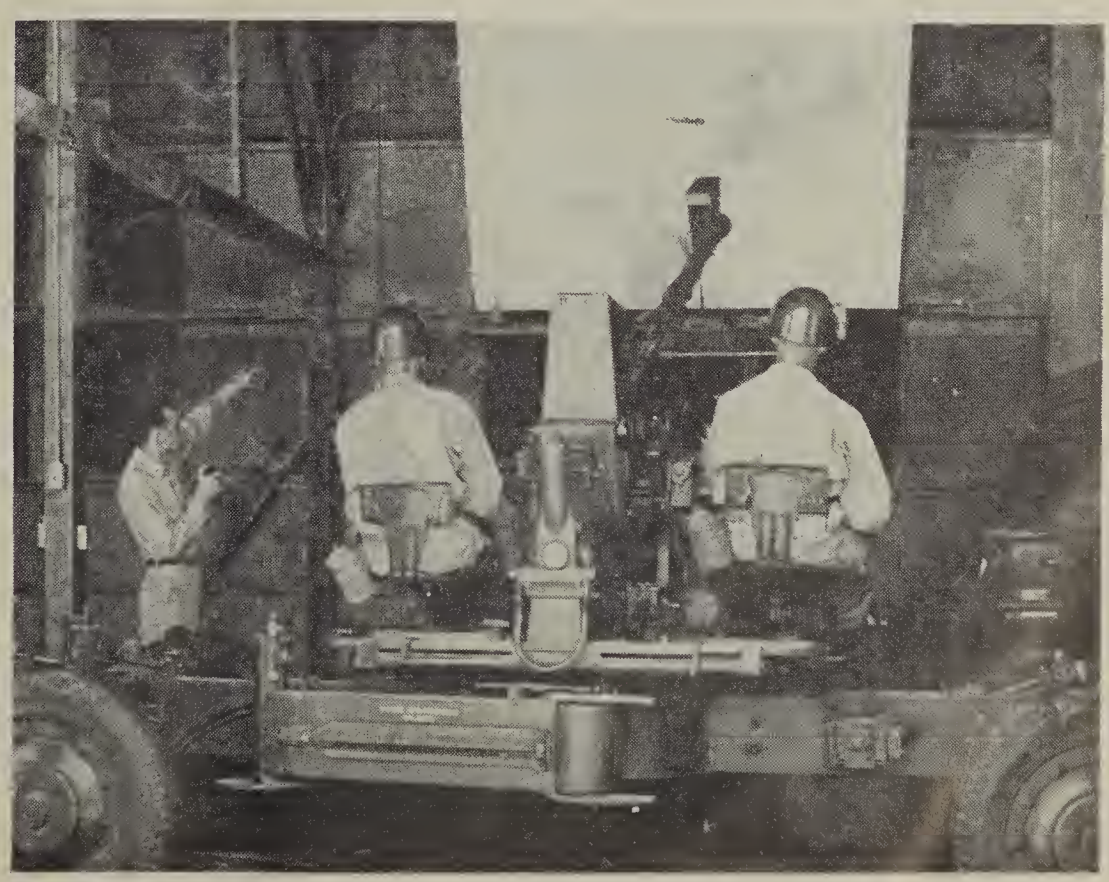
The Antiaircraft Artillery Journal reports that the 34th AAA Brigade in Europe has adopted the British-built "Portobel" machine gun trainer. It is designed to provide M16 and M55 quadruple caliber .50 machine gunners with practice in tracking targets with speeds up to 500 miles per hour on any type of course. The apparatus consists of an airtight fabric dome 30 feet in diameter and 20 feet in height which is fully inflated when in use. Instruction is carried on inside the dome, the internal pressure of which is about one millibar greater than the external barometric pressure. Interior of the dome is illuminated to resemble the sky and is finished with a white rubber surface which makes a good screen. A 35mm projector throws pictures of attacking aircraft onto a motorized mirror which moves in azimuth and elevation while reflecting on the inner surface of the dome. A yellow spot becomes visible when the aircraft comes within range of the gun. If the gun has been aimed correctly, the reticle should coincide with the yellow spot on the film. This spot is normally not visible to the gunners as they wear spectacles which filter out the yellow color.

Pocket Preserver

RES-Q-PAK is the commercial name for a new pocket-size life preserver now being marketed for use by fishermen, airmen, boaters and swimmers. Deflated it's no larger than a pack of cigarettes. Just a squeeze inflates the Vinylite water wing with carbon dioxide and the manufacturer claims that it will support a fully-clothed 250-pound man.

Ammo Savers

At the Antiaircraft Artillery Replacement Training Center at Fort Bliss, Tex., trainee-gunners "fire" their weapons at airplanes "flying" across a motion picture screen—and save the government about $835,000 a month by not shooting up live ammunition. The electronic equipment they use was developed by the Navy during the Second World War. At Bliss it is used with both caliber .50 machine guns and 40mm guns. When an airplane "flies" across the motion picture screen the complex electronic equipment establishes a correct "lead zone" invisible to the gunner. When it is "fired," tracer projecters go into action, showing the line of fire in correct relationship to where the gun is fired. The special projection system and special glasses worn by the gunner give the gunner a perception of distance that is exactly like he sees when firing live ammunition at an actual target. To further simulate actual firing conditions, the gunner hears both the sound of the attacking aircraft and the gun firing. There is even a recoil. The electronic system records "ammunition" fired so that the gunner can check on his accuracy.



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NEW INSTRUCTIONAL MATERIAL PREPARED BY THE INFANTRY SCHOOL

The following new instructional material suitable for non-resident as well as resident instruction may be ordered from the **Book Department, The Infantry School, Fort Benning, Ga.,** at the prices shown. (The COMBAT FORCES Book Service regrets that it cannot handle orders for these pamphlets.)

WEAPONS DEPARTMENT

Mechanical Training, BAR: No. 1108. General data; nomenclature, disassembly, assembly of operating group and buffer and rate reducing group; functioning of operating group, gas adjustments; stoppages, immediate action, and field expedients; spare parts and accessories. 4 hours. 10¢

Marksmanship, Preparatory Training, M1 Rifle: No. 1123. Trigger squeeze in all positions; taking positions rapidly. 4 hours. 10¢

Marksmanship, Preparatory Training, M1 Rifle: No. 1125. Sustained fire; examination prior to range firing. 4 hours. 10¢

Marksmanship, Instruction Practice, M1 Rifle: No. 1128. Zeroing and practice firing on known distance range; care and cleaning. 8 hours. 10¢

Marksmanship, 1000", BAR: No. 1135. Range procedure, safety regulations, 1000" instruction practice, BAR. 3 hours. 10¢

Marksmanship, Instruction Practice, on known distance range. 4 hours. 10¢

Marksmanship, Record & Record Practice, Known Distance Firing, BAR: No. 1140. Record practice, Table III, TC 7, DA, 21 Apr 1950. 4 hours. 10¢

Rifle Grenades: No. 1205. Introduction; types; characteristics; functioning; grenades; grenade launchers; M15 sight; demonstration and familiarization firing. 3 hours. 10¢

Rocket Launchers 2.36" and 3.5": No. 1221. Characteristics, demonstration firing; preparatory marksmanship; methods of instruction; boresighting launchers; practice tracking moving targets. Familiarization firing. 4 hours. 10¢

Crew Drill, Cal. .30 MG, M1919A6 and MG, M1917A1: No. 1314. Examination of equipment, action and out of action, measuring and laying off angles. 8 hours. 10¢

Technique of Fire, MG Cal. .30: No. 1379N. Night application of range card data. 2 hours. 10¢

Crew Drill, 4.2" Mortars: No. 1616. Aiming circle; laying the platoon parallel with aiming circle; laying the platoon parallel using the sights; safety precautions; loading; removal of misfires. 4 hours. 10¢

Mechanical Training, 57mm Rifle: No. 1704. General data; nomenclature; disassembly and assembly; stoppages; immediate action; care and cleaning. 4 hours. 10¢

Marksmanship, Cal. .30 MG M1919A6: No. 1323. Instruction and record practice firing, Table I, Course A. 4 hours. 10¢

TACTICAL DEPARTMENT

Combat Formations, Rifle Squad and Platoon, No. 2002. Organization and equipment of the rifle squad and platoon; combat formations and their tactical uses; combat drill. 2 hours. 5¢

Heavy Weapons Company in Attack, No. 2163. Principles of tactical employment of the heavy weapons company in the attack; practical exercise requiring a reconnaissance and plan of employment; TF 1542, "Heavy Weapons Company in Attack." 4 hours. 5¢

Characteristics of Airborne Operations, No. 2320A. Basic concepts and characteristics of airborne operations. Comparison between the missions, preparation of attack, assembly techniques, and reinforcing agencies available to an airborne rifle company and an infantry division rifle company. TF 1-3711, "DZ Normandy." 2 hours. 5¢

Seminar, Offensive Tactics, No. 2388. Group discussion of tactical principles governing offensive action of infantry regiments. 2 hours. 10¢

Troop Leading, Battalion and Regiment in Defense, No. 2454A. Purpose of troop leading, the principles of troop leading, the subsequent steps in troop leading and their application to the battalion and regiment in the occupation and organization of a defensive position. 2 hours. 6¢

Retrograde Movements (Map Exercise), No. 2484A. Principles of retrograde movements to include: withdrawals and delaying action. A map exercise of a rifle company in a night withdrawal and in a delaying action. 4 hours. 60¢

Armored Infantry Rifle Company in Defense, No. 2607. Organization and conduct of mobile defense; employment of an armored infantry rifle company in the sustained and mobile defense. 2 hours. 15¢

Stream Crossing Expedients, No. 2711. Expedient methods of crossing personnel, light weapons, and vehicles over rivers. TF 7-1303, "Stream Crossing of Personnel." TF 7-1304, "Stream Crossing Expedients"—Part II—"Flotation of Weapons, Equipment, and Vehicles." 1 hour. 5¢

Employment of Orangic Engineers of Infantry Division in Defense, No. 2726. Review of organization and capabilities of the engineer combat battalion, divisional, principles of engineer employment, basic dispositions, logistical support, task assignment and engineer planning. 1 hour. 5¢

Employment of Organic Engineers of Infantry Division in Offense, No. 2728. Review of organization and capabilities of the engineer combat battalion, divisional, and principles of engineer employment. Engineer planning, reconnaissance, supply and missions in an offensive situation. 1 hour. 5¢

Rifle Company in Attack of a River Line, No. 2156. Principles governing river crossing operations with emphasis on reconnaissance, selection of crossing sites and objectives, formations, organization of waves, security measures, use of supporting weapons, timing, and execution. 2 hours. 25¢

Mine Warfare, No. 2705. Development of mine warfare, types of U. S. mines, employment of mines and authority for using mines, siting, marking, and recording of mine fields. 1 hour. 10¢

Front-Line Rifle Platoon in Defense, No. 2418. Tactical employment and organization of a front-line rifle platoon in defense to include organic personnel and weapons normally located in front-line platoon areas. 4 hours. 45¢

Front-Line Battalion in Defense, No. 2441 (Replaces 2458). A map exercise in which the student, acting as battalion commander, plans the organization of a front-line battalion defense and controls the conduct of the defense during the attack. 4 hours. 50¢

★ BOOK REVIEWS ★

ORGANIZER OF ARMORED FORCES

PANZER LEADER. By General Heinz Guderian. Foreword by Captain B. H. Liddell Hart. Translated by Constantine Fitzgibbon. E. P. Dutton, New York. 528 Pages; Illustrated; Index; $7.50.

"With men of action, the place they fill in history is usually determined by the extent to which they have shaped history. Guderian's achievements—his effect on the Second World War, and on warfare—put him on the top level as a soldier. . . . He applied the idea of the independent use of armoured forces so fully and so decisively that he brought about victories which, measured by any standard, have hardly been matched in the records of warfare."

This quotation from Captain B. H. Liddell Hart's foreword to the autobiography of General Guderian puts the man in proper historical perspective. The pages that follow advance the book to the upper bracket among personal stories on the late global conflict, and, indeed, place it in the category of a military classic.

Heinz Guderian was a captain serving in various staff assignments when Allied tanks were breaking the trench stalemate of World War I and setting the stage for the era in which he was to make history. In these memoirs, Guderian disposes of his early life and his World War I service in something less than two pages. He does note the value of signals assignments in the early months of the war as grounding for his later specialization.

His second chapter on the creation of Germany's armored force is perhaps more important than any in the book, including those on operations, for it deals with the formative years when theory, doctrine, organization, equipment, research and development—those things of which operations are the outgrowth—were being hammered out in Germany. In retrospect it may well be said that the progressive development of Germany's panzer arm was a reflection of the image of Guderian's ideas.

Appropriately enough, Guderian is led to armor via the motor transport field. Assigned to the Motorized Transport Department in 1922, he became aware of the possibilities of tactical employment of motorized units, in addition to their use as supply troops, and despite the contrary opinion of his chief, "To hell with combat! They're supposed to carry flour!"

A review of Allied tank experience in World War I and a study of the writings of England's Fuller, Martel and Liddell Hart were a part of the germinating process. Guderian became one of a small group of farsighted and imaginative soldiers of various countries who recognized the possiblities of motorization in the ground combat picture. In the step-by-step evolution of his ideas, mobile warfare was the hinge of his thinking. But the way of the pioncer is never easy. Opposed to that concept was the prevalent consideration of the tank as an infantry-support weapon.

For Guderian, the transition from the theoretical to the practical came in 1928 when he first climbed into a tank. At this point, the long march in his crusade on behalf of the employment of armor as an independent arm really got down to cases. "It would be wrong to include tanks in infantry divisions. What was needed were armoured divisions which would include all the supporting arms needed to allow the tanks to fight with full effect."

Guderian carried the ball successively as Chief of Staff to the Armored Troops Command; Commander of the 2d Panzer Division; Commander of XVI Army Corps; and Chief of Mobile Troops. And thus arrived the moment when preparation must become demonstration.

Few soldiers in their careers are fortunate enough to have the opportunity to prove on the battlefield the "revolutionary" theories and practices which they have conceived and developed during long years of peacetime service. When war came, Guderian moved to the execution phase of his innovation. The opposition moved with him onto the battlefield, hedging and then increasingly confounded while the panzer leader produced major results as commander first of a corps, then of a panzer group, and finally of a panzer army.

A great part of *Panzer Leader* is devoted to the chronicling of day-to-day action. Although the general history of the war is known to the military man, this is the German view and there is much new material. The details of leadership, tactics and personalities combine into some of the most remunerative material to appear on the Polish Campaign, the lightning strike to the West and the larger campaign to the East. The operations in Russia have the added import deriving from postwar international developments.

Guderian brings to battlefield command the same driving energy that appears in his dedication to peacetime tasks. Throughout the book there emerges much of the story of broad differences in the direction of the war. It is interesting to note that during the campaign in the West in 1940, Guderian's complaint with his superiors is their over-caution. He senses that aggressive action will bring decisive results. The following year in the East he once again accomplishes great results while disagreeing with the conduct of operations. Guderian was never one to hesitate in voicing his views or criticism. This led to his dismissal. Later recall as Inspector-General of Armored Troops and finally as Chief of the General Staff were vindications which came too late in the game for the man and his country. Now, a decade later, his remarks on the rigidity of the Supreme Command, their practice of directing the war from headquarters far to the rear, their failure to accept the estimates of commanders at the front, and the serious supply problem and lack of winter clothing—all of this constitutes a severe indictment of a military command.

As the outstanding account from the German side on the late war, *Panzer Leader* is an important historical document. But its real significance lies not so much in its interpretation of a war as in its interpretation of warfare. The fact that a vocal minority advanced a theory that was vindicated, demonstrably, on the battlefields of history's greatest war; the fact that proven concepts remain to this moment unacceptable to certain of the (for whatever reason) unconvinced; the fact that any casual observer of today's military scene can come up with existing parallels to Guderian's difficulties in another day in promoting mobility; these are the points that make *Panzer Leader* a book for every military man—from the policy maker in our high councils down to the platoon leader who will inherit our command of tomorrow.—Major William Gardner Bell

WHO'S WHO IN UNITED STATES POLITICS AND AMERICAN POLITICAL ALMANAC, including 1952 Supplement. Edited by Richard Nowinson and Ruth Thornquist Potter. Capitol House, Inc., in association with The Macmillan Co. 993 Pages; Illustrated; $25.00.

According to the cover blurb, this formidable volume includes "10,000 biographies of Republican, Democratic and minority party leaders; rosters of every state administration and every legislature; the names, addresses, and posts of every leading member of the Federal administration; the names and addresses of 25,000 members of Republican and Democratic federal, state, and local committees; the names, addresses, politics, terms of every senator, congressman, Supreme Court judge, district attorney, U. S. Marshal; the mayors and council members of the 15 largest cities; election statistics since George Washington's time; balloting of every Democratic and Republican convention since Jackson's and Lincoln's time; party platforms, traditions, organizations; and thousands of other facts, current and historic."

Inevitably, such a compilation fails to reflect the results of mutation and mortality in political life. Thus, while a picture on page 103 portrays Governor William Lee Knous of Colorado, that gentleman's biography at pages 177-178 shows that he has been a U. S. District Judge since April 1950. And the results of the 1950 elections, which are duly recorded in the supplement, are not carried over into supplemental biographies.

At $25, a volume like this can be sold only to organizations desiring mailing lists, but what with obsolescence at the time of publication, to say nothing of subsequent changes, it naturally loses considerable of its utility. An ex-Senator, of course, likes to be called "Senator" for the rest of his days, but he is apt to feel old scars if his

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Off-Duty Reading

Fisherman, Spy-catcher, Priest and Commentator

ERNEST HEMINGWAY has turned to the sea for material for *The Old Man and the Sea* (Scribner's; $3.00). It is a little hard to say whether this is a long story or a short novel, but it should rank with his very best work. It is a story about an ancient Cuban fisherman and his three-day battle with a great marlin in the Gulf Stream. Here, beautifully developed and austerely written, is the everlasting battle of man against nature—a battle as deadly as any man wages against man, but without hate or malice. Any book, of course, always has to be compared to some other book. The only comparison we can make here is to say that *The Old Man and the Sea* reminds us of the very best of Hemingway's earlier short stories, with a little of Rachel Carson *(The Sea Around Us)* thrown in for good measure. We realize this sounds wildly improbable, but then so do most comparisons.

ONE of the most fascinating stories we've come across in a long time is *Spy-catcher,* by Colonel Oreste Pinto (Harper; $2.75). Colonel Pinto is a Dutchman with thirty years of counterintelligence experience. During World War II, he was first given the job of screening the thousands of refugees who poured into England after the fall of France. Later, he served as chief of the Dutch counterintelligence organization, attached to SHAEF. This book is a sampling of some of his more spectacular cases, most of which resulted in the conviction and death of the spies involved. Perhaps his most spectacular case was the apprehension of Christian "King Kong" Lindemans, huge hero of the Dutch Resistance. Colonel Pinto identifies Lindemans as the man who betrayed the Arnhem airdrop to the Germans, and tells the story of his arrest and confession. From here on things get a bit muddled. Lindemans' confession and files were lost, and Lindemans himself was not arraigned for formal trial until June, 1946, and then only under British newspaper pressure. Two days before his trial he committed suicide. It is a fascinating story.

EVERY so often somebody writes a book about soldiers, and right away he's another Ernie Pyle. We don't think *anybody* is going to be another Ernie Pyle, but that doesn't mean that nobody else can understand soldiers or write about them with the clarity and compassion of one who *does* understand them. Father Timothy J. Mulvey is a gifted writer, who sought and received the permission of his Church to go to Korea and write a book. *These Are Your Sons* (McGraw-Hill; $3.75) is the book. It is a series of episodes—individual exploits of soldiers, sailors, airmen, and marines, in battle and out, at work and at play. To the soldier, himself, this may sound a little like the poop the journeyman PIO dishes out for the hometown papers. It isn't. Father Mulvey is a perceptive man who understands war, and can write about the good and the bad in every soldier without judging him. He can write without self-consciousness of war's horror, for him and for others, and of the nobility it brings out in many men. *These Are Your Sons* is in its own right a splendid book on war. Father Mulvey is not another Ernie Pyle, but then, he does not need to be.

ERIC SEVAREID is well known to millions of radio listeners as a fine reporter and war correspondent. His current book, *In One Ear* (Knopf; $2.95), is a collection of his radio essays on a great variety of subjects—war and the state of the Union, politicians and pundits, America and civil rights, and the men who make the news. What he has to say he says with disarming casualness, but much of it is important and all of it is interesting. Here in a short book is America as Mr. Sevareid sees it, and we are happy to say that Mr. Sevareid, whose field of observation is as broad as he cares to make it, sees very clearly indeed.

O. C. S.

mail is still sent to the Capitol; while ex-Congressmen and ex-Governors promoted to the Senate Chamber will surely not relish being addressed at the House of Representatives and at the State House. After all, what colonel likes letters that still refer to him as "Lt. Col."?—F.B.W.

BOOKS RECEIVED

WORDS & WAYS OF AMERICAN ENGLISH. By Thomas Pyles. Random House. 310 Pages; Index; $3.50. "An absorbing, authoritative account of the origins and growth of the present state of the English language in America."

THE LIFE AND DEATH OF STALIN. By Louis Fischer. Harper & Brothers. 272 Pages; $3.50.

KOREA 1950. Office of The Chief of Military History. Government Printing Office. 281 Pages; Illustrated; $1.25. An official pictorial of the Army's effort in Korea.

THE TRAITORS. By Alan Moorehead. Charles Scribner's Sons. 222 Pages; Illustrated; Index; $3.50. The story of the men behind the atomic energy spy ring including Fuchs, May and Pontecorvo.

PICTOGRAPHS AND GRAPHS: How to Make and Use Them. By Rudolf Modley and Dyno Lowenstein. Harper & Brothers. 186 Pages; Illustrated; Index; $4.00. A necessary book for training aids personnel.

PHILOSOPHIC PROBLEMS OF NUCLEAR SCIENCE. By Werner Heisenberg. Pantheon Books, Inc. 126 Pages; Index; $2.75.

WARWHOOP. By MacKinlay Kantor. Random House. 246 Pages; $2.50. Two short novels of Indian fighing days.

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FORMOSA UNDER CHINESE NATIONALIST RULE. By Fred W. Riggs. The Macmillan Company. 195 Pages; $2.75.

THE DANGER WITHIN. By Michael Gilbert. Harper & Brothers. 244 Pages; $3.00. A prisoner of war novel.

THE CABINETMAKER'S TREASURY: A Practical Guide to the Reproduction of Fine Period Furniture. By F. E. Hoard and A. W. Marlow. The Macmillan Company. 267 Pages; Illustrated; Glossary; $6.00.

A HISTORY OF PORTUGAL. By Charles E. Nowell. D. Van Nostrand Company, Inc. 259 Pages; Illustrated; Index; $4.50.

GRENADINE'S SPAWN. By Robert C. Ruark. Doubleday & Company. 253 Pages; $3.00. For those who enjoyed *Grenadine Etching.*

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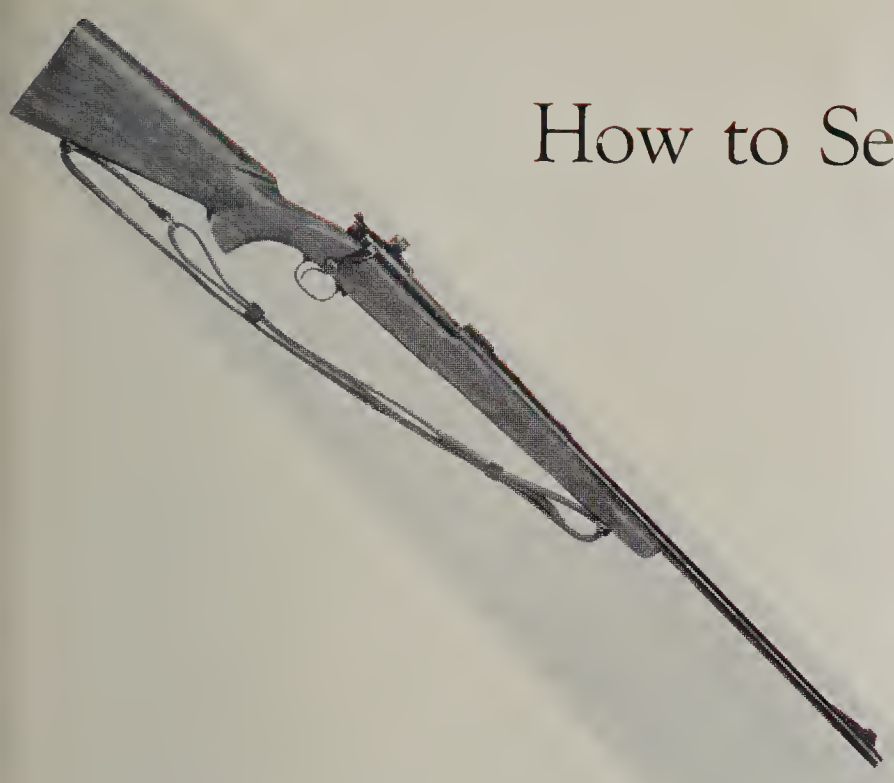
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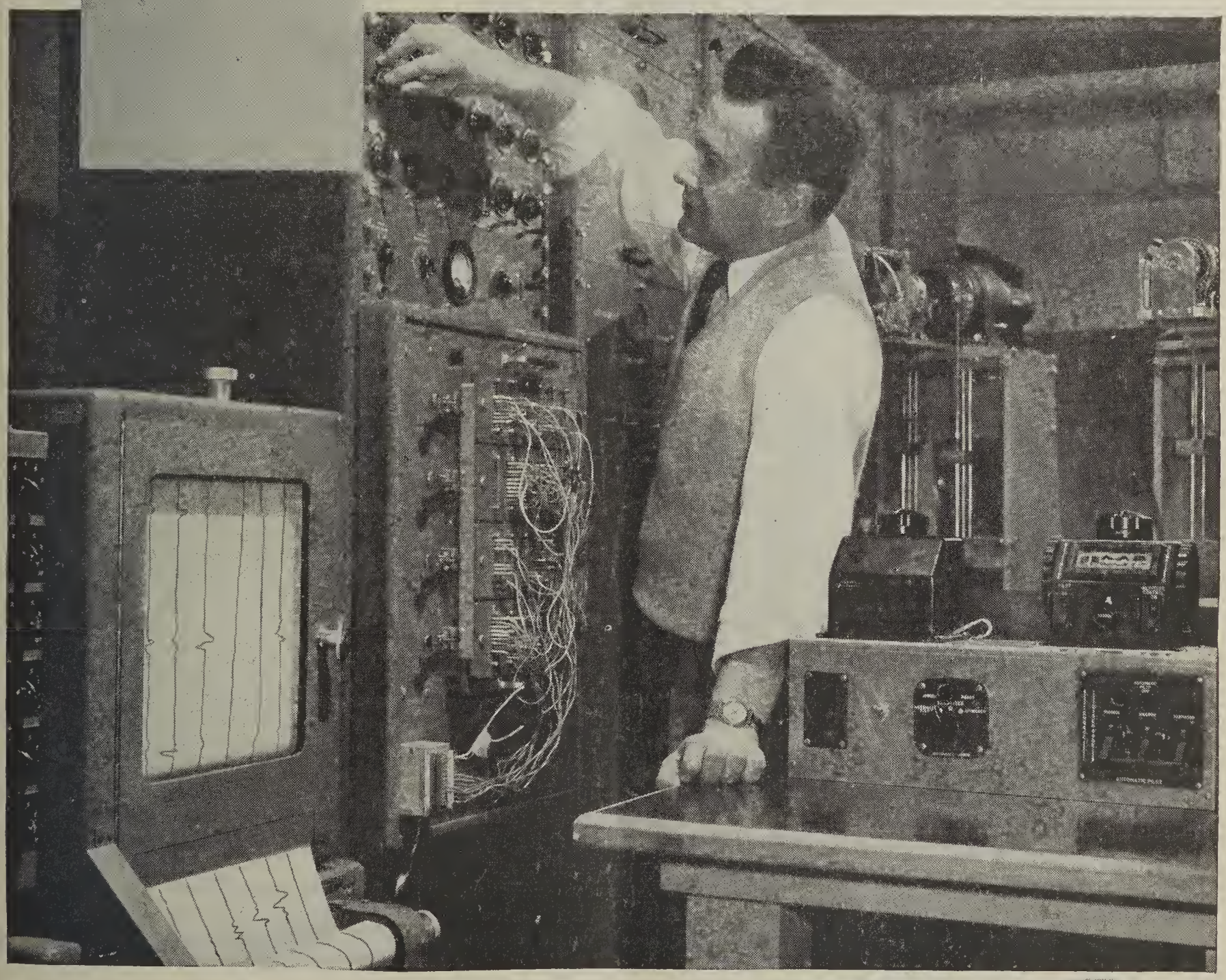
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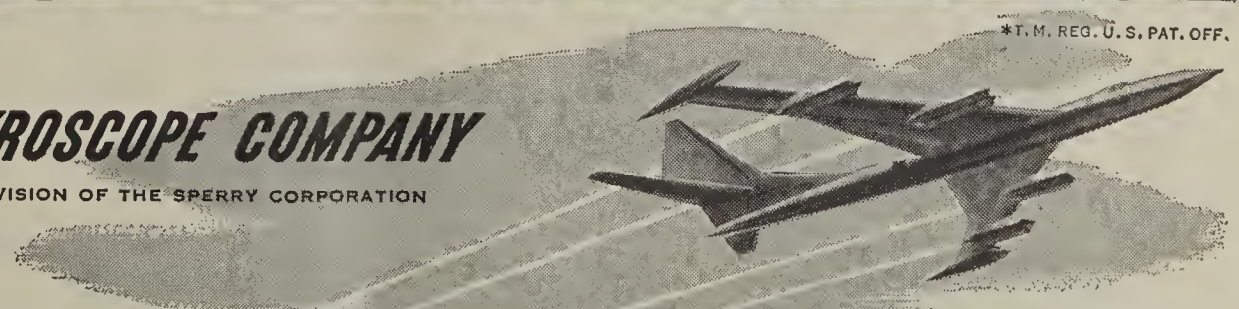
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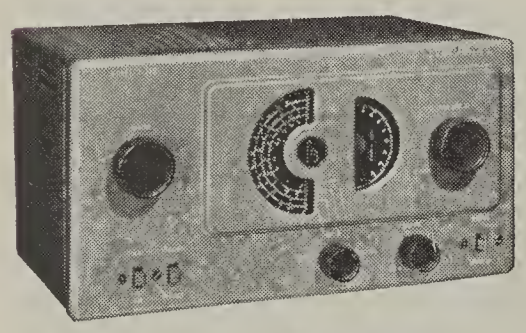
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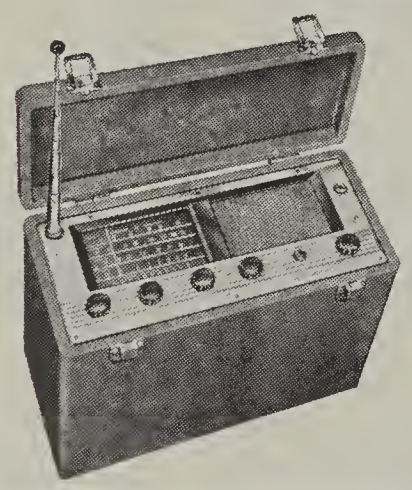
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★ To the Editors . . . ★

Mortar Flares

To the Editor:

When our company was occupying positions on the famed "T" northwest of Chorwon, Korea, during June of this year, we had a great deal of difficulty in assessing the immediate effects of artillery fire at night.

Since the outgoing artillery rounds passed directly over us, we were able to use the following system.

Whenever an artillery concentration was called for by one of our rifle platoons, we immediately had the one 60mm mortar; used for flares only, lay on the flare data for that particular platoon. Then the assistant gunner held a flare in the tube until he was given the command to fire. As the outgoing rounds whistled overhead, the command to fire was given and the flare was on the way. The timing was such that the flare burst just as the artillery rounds hit the target area. As a result, we were able to observe the effects of the concentration on any enemy who may have been caught in the open.

This procedure enabled us to keep illumination to a minimum, save the more expensive artillery flares, and report results immediately to both the artillery and our own staff sections.

Lt. John J. Chauvin
Co. B, 279th Inf Regt
APO 86, c/o PM
San Francisco, Calif.

Three Commanders

To the Editors:

Regarding "Three Regimental Commanders in Korea" in your September issue:

Colonel Able. Obviously a career military man with one thought in mind, making hard, tough soldiers of his men and officers. From Major Bryan's description it is obvious that Colonel Able is extremely successful because we are told the division commander uses the "Deathtrap" regiment for particularly tough assignments. With one thought in mind, making hard, tough soldiers and winning the battles, against my better judgment I would rate Colonel Able as the best of the three regimental commanders.

Colonel Baker. In my opinion Colonel Baker is a nonentity; his regiment, although dependable in battle would operate just as well without him. I feel confident that any group of American soldiers as large as a regiment, divided into battalions, companies and platoons with a regimental commander taking orders from division headquarters will always be dependable in battle. A good regimental commander capable of selecting carefully his battalion commanders will give his regiment the extra oomph that has been thoroughly indoctrinated into Colonel Able's men, even if with a little too much chicken.

Colonel Charlie. Colonel Charlie sounds like the man for me. Although his regiment may not be as tough or as capable as Colonel Able's regiment it has proven to be competent under fire. It must be remembered that the men of these three regiments that survive will in a short time be returned to civilian life. Colonel Charlie's men will be the best adjusted in the most important task of being good citizens, perhaps even better adjusted because of their relations with this regiment. The teamwork learned by the men and officers of this regiment will be as invaluable in civilian life as it is in combat.

Colonel Charlie may one day be replaced for any number of reasons: promotion, death, illness; if this were to happen the regiment could operate without him but I think Colonel Able's regiment would be in trouble were he replaced, as he made all the decisions.

Jack E. Klein
1507 M St., N.W.
Washington, D. C.

Suggestions

To the Editors:

Your magazine has been tops with me ever since I began taking it because from it I can keep up to date on our armed forces while I am in civilian life. Of course there is always room for improvement and suggestions and I would here like to make a suggestion. I am interested in articles from Korea and other battle zones like Indochina and Malaya. I would like to see some articles on how our allies in Korea are doing. Their combat records and the abilities of the soldiers from South Korea, Britain, Turkey, Australia, the Philippines, Colombia, France, Belgium, Thailand, Ethiopia and elsewhere. These could be interesting and informative articles.

I would also like to agree with your reader who suggested that a series of articles on the history of our divisions be included either monthly or every other month.

These two things I mentioned would add a little more spice to an already highly seasoned magazine.

Arthur E. Harder
3291 North 10 Street
Milwaukee 6, Wis.

• We would like to do both. But until we can justify a much enlarged magazine many desirable features have to be put aside. We appreciate all such suggestions —and criticisms, too. Indeed we get too little criticism and would welcome some.—The Editors.

Sun Glasses

To the Editors:

We are *amazed and surprised* to find that Lieutenant Langerman believes the wearing of sun glasses by the sentry at the tomb



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of the Unknown Soldier to be sacrilegious [Combat Forces Journal, September 1952].

We neither know nor care what the guards at Buckingham Palace wear but, for the benefit of the lieutenant, the authority for wearing sun glasses is found in T/A 21, Part III, Section 1B, Page 27, Item 8.

If the wearing of any type of glasses by military personnel is a sign of weakness then men who wear glasses should be discharged from the Armed Forces. However, if all who wear glasses were discharged there would be few left in the Army.

Capt. Howard S. Smith
Lt. Wayne Garfield
Highway Transport Service Div.
Office, Chief of Transportation
Washington 25, D. C.

To the Editors:

I haven't bothered you with a letter for quite a while, but Lt. Langerman's letter in the September issue teed me off. So the sentries at the Tomb of the Unknown Soldier wear sun glasses! Tsk, tsk, tsk. And the guards at Buckingham palace don't wear sun glasses. Tsk, tsk, tsk, again.

The sentries at Arlington look good enough for my money, and I'm proud to have spent a few years in an army that realizes that Washington's bright sunlight on Arlington's white marble is a little more than any man should be asked to endure unnecessarily. Sure the 82d Airborne could walk the past without sun glasses—and so could the bright and alert young sentries from the 3d Infantry who are walking post now. And I could hit my head with a hammer, but I see no purpose in it. Thank God the people in command of the detail use a little humanity instead of blindly aping certain foreign armies.

If that is the worst Lt. Langerman could find in Washington, perhaps he was wearing sun glasses himself.

Colonel Legree

Combat Pay

To the Editors:

Keep up the fight for justice on combat pay for the combat infantryman and the discriminatory flight pay for a flyer.

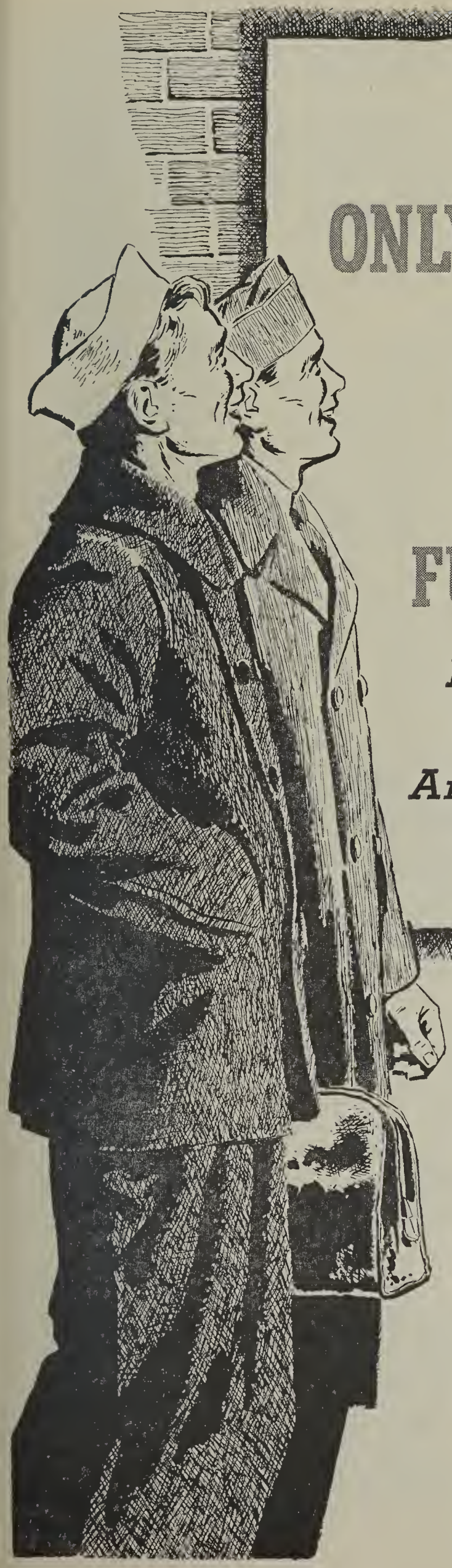
Just another fact to aid in your fight is in the European Central Air Headquarters.

The duties performed are administrative duties and not only do these "flyers" draw their flight pay, but use the planes to fly their four hours a month to make them eligible to collect this discriminatory pay.

If the duties of a flyer cause him to fly it might be justified, but to deliberately burn gasoline to become eligible to draw the pay is something else.

If this letter or any part of it is published or made public, *request my name and unit be withheld,* as I still have a number of years to serve without incentive pay.

Lt. Wingless
(Name and address withheld)





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Seventh Army

To the Editors:

I have just finished reading the August issue and I thoroughly enjoyed two of the articles.

I thought the article "The Seventh Army" by Drew Middleton was very good. The other article which particularly caught my interest was "Battalion Commander in Europe" by Lt. Col. Eben F. Swift. However, accompanying this article was a picture, the caption of which stated that the unit preparing the fire was Battery B, 206th Field Artillery Battalion. This caption is slightly inaccurate as the unit firing is elements of Battery C and Battery B, 103d Field Artillery Battalion, 43d Infantry Division. The sergeant with the goggles on his helmet is John F. Aviotti of Memphis, Tenn.

Lest some sharp artilleryman note the near perfect alignment of the howitzers shown in the picture, I would point out that we were calibrating our howitzers at the time.

LT. COL. ALBIN C. STEVENS
Hq. 103d FA Battalion
APO 112 c/o PM New York, N. Y.

Armed Forces Radio

To the Editors:

While reading the August issue, the following paragraph in Drew Middleton's article "The Seventh Army" struck me as deserving of comment:

"One thing that strikes anyone familiar with the army in Germany is the serious wastage of men on non-essential duties. Listening to the American Forces Network one afternoon, I learned that the program of jazz music to which I had listened was sponsored by the Information and Education Division of the 4th Infantry Division.

"Now the I&E has done good work in Europe with its efforts to tell the soldier why he is where he is and what he is fighting for. But does it have to assign men to work out a program of dance music?"

We would like to point out a few things about the Armed Forces Radio Service which produces programs that fall into four general classifications:

(1) Information and Education programs written and produced at Los Angeles Branch of the Armed Forces Information and Education Division. These programs illustrate American ideals of government, democracy, tolerance, and good fellowship, and attempt to encourage good citizenship. Certain programs deal with such vital problems as soldier conduct, pride of unit and of nation, national and international issues and the understanding of our basic freedom.

(2) Information and Education programs that have been originally broadcast by commercial networks in the U. S. These include dramas and forums.

(3) Entertainment programs written and produced at AFRS.

(4) Entertainment programs originally broadcast by commercial networks in the U. S.

It would seem from the article that the criticized program would come under No. 3.

We fail to see Mr. Middleton's point. The soldiers in our Army are citizen-soldiers. Their views and tastes are the same or similar to those of the people back home, including such things as jazz music.

We're sure that, if Mr. Middleton would investigate the objectives and programs of the Army's Information and Education program he would discover that the need for such programs and that the methods of presentation are of concern to all echelons of command, plus the close scrutiny of Congress, which authorizes their continuance and concurs in the use of the manpower and money that are necessary.

If Mr. Middleton is so certain that the soldier's morale is such a minute contribution to his success in battle, let him tell it to some of the veterans who have been isolated for periods of time, where their only contact with the world or home was through the medium of the Information and Education programs.

CAPT. OLIVER J. EDWARDS, JR.
M/SGT. GERALD W. DULL, SR.
Hq. US Army Alaska
Troop Inf. & Education
APO 942, c/o PM
Seattle, Wash.

"Amphibian" Maps

To the Editors:

We now have the new terrain maps with all contours and profiles actually shown in elevated portions of the paper, with the surface features appearing much as they do on the ground. With this a man can make a better map reconnaissance, and for staffs it is wonderful. But how about those assorted soldiers, sailors, and marines who have to worry about getting ashore, before they can use these wonderful maps?

For the benefit of these amphibian animals, I suggest that the map makers continue their work, and show actual elevation and depression, as far off the shore as they can. The information can be obtained from a number of agencies of the government.

The best distance for planning purposes for amphibious work, would be 20,000 yards off shore, where the outlying transport area is. Just think what a godsend it would be to the staffs of the combined arms and services, to actually be able to see before their eyes, on a map, what the bottom is like, right up through the surf onto the beach proper. Further by using colors or conventional symbols, the type of bottom, growths, and such could be indicated.

To further embellish this, "amphibian," map, three sheets of acetate could be cut to fit the coastline as follows: (1) for high

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tide, (2) mean tide, (3) low tide. On these sheets the tides, both rip and regular, could be drawn in with a wax pencil, or for higher staffs, they could even be printed on the acetate.

With the addition of the amphibian map to one of these new type terrain maps, an amphibious commander of any level would have a complete picture of the coast on both sides of the shore line, and of the elevations and depressions both on land and under the water. It would aid underwater demolition teams, Marine reconnaissance battalions, landing craft, beachmasters, and us poor chaps who hit the beach under fire.

WELL WHY NOT? we need it.

MAJOR HARRY W. MORSE

Shrapnel and Shell Fragments

To the Editors:

I congratulate you on publishing "Shrapnel, Semantics and Such" by Major General H. W. Blakeley. It was long overdue. I had planned to write an article along such lines but General Blakeley has done a superb job. I do question one statement.

General Blakeley states in the opening sentence of the fourth paragraph that "In pre-World War II days, shrapnel was regarded as the most efficient type of ammunition against troops in the open." Did he not in fact mean "In pre-World War I days"? It is my recollection that prior to the onset of trench warfare in World War I, field artillery was issued ammunition in the ratio of nine shrapnel and one HE. It is also my recollection that by the spring of 1918 shrapnel had practically gone out of the picture and had been replaced by HE.

My experience with the confusion between shell fragments and shrapnel in World War II began very early. From 1 September 1940 through July 1943 I was on the staff of the Surgeon, Hq., Ninth Corps Area. Among my other duties was that of reviewing and passing upon proceedings of Line of Duty Boards. Shortly after casualties began to arrive at general hospitals on the West Coast I began getting Line of Duty Board proceedings on such personnel. (This was in direct violation of pertinent regulations and I soon had such proceedings stopped.)

In a majority of such documents the word "shrapnel" was used instead of "shell fragment." Later when I commanded a 500-bed station hospital on Guadalcanal and Okinawa I encountered the same error. In personal conversation with line officers of all grades I seldom found one who knew the difference, and even those who did took the attitude of "What the hell difference does it make?" I even found the word spelled "Schrapnell" on innumerable occasions, evidently by reason of the person believing that shrapnel was a German invention.

In 1946-47 I spent more than a year rating claims in the Veterans Administration and encountered the same display of ignorance. It has irked me no end and I have constantly preached the gospel, usually to deaf ears.

Another thing which irked me was the flippancy with which medical officers described wounds as having been made by bullets of a certain caliber, when the bullet had passed on through. Such action is a frank—although unconscious—admission of the grossest ignorance.

I am a physician of nearly thirty-seven-years' experience. I have been a pathologist for nearly thirty years. I have treated many gunshot wounds. For many years I was Autopsy Surgeon to the Coroner, Los Angeles County, and I have performed more than 15,000 autopsies. I have seen skulls shattered by what was known to be a .22 long rifle high-velocity bullet, as badly as by a .45. Conversely I have seen entrance wounds made by .45 pistol bullets which were no larger than would have been made by a .22. On the basis of extensive personal experience I can categorically state that no one can possibly state what caliber missile made a given wound unless he has absolute personal knowledge of the weapon employed or actually recovers the missile from the body.

While on the subject of semantics, there was—and still may be—another even more inexcusable error indulged in by Army Ordnance during the war. I wrote a letter protesting it. In its manuals, Ordnance described the armament of tanks as being a gun of such-and-such size as the main armament with "a coaxially mounted machine gun." Actually, no such combination was ever mounted.

By its very essence the term "coaxial" means having axes in common. This is possible in only two ways. First, take the example of a piston-type engine. In it the piston, piston rings, and cylinder are truly coaxial. In the second example, the lenses of an ordinary telescope are coaxial inasmuch as all lenses have the same axis.

For two guns to be coaxial one would have to be mounted within the other or in prolongation of the other. Such an arrangement would obviously be impracticable except for certain highly specialized work. For instance, at Fort Riley in 1910 I saw a three-inch field gun with a .30-'06 barrel and action mounted on star mountings within the three-inch barrel for subcaliber target practice. I saw that only once. That *is* coaxial mounting. The Navy sometimes used 37mm guns mounted on larger guns by clamps around the barrel for subcaliber practice. This is *not* coaxial mounting. It might be properly spoken of as "parallel mounting," which would be correct.

It is to be regretted that General Blakeley did not include a bit of the history of the development of shrapnel from the early days of "grape" and canister up to its ultimate flowering in shrapnel.

Again—congratulations.

COL. JOHN H. SCHAEFER
AUS-Retired
Los Angeles 5, Calif.

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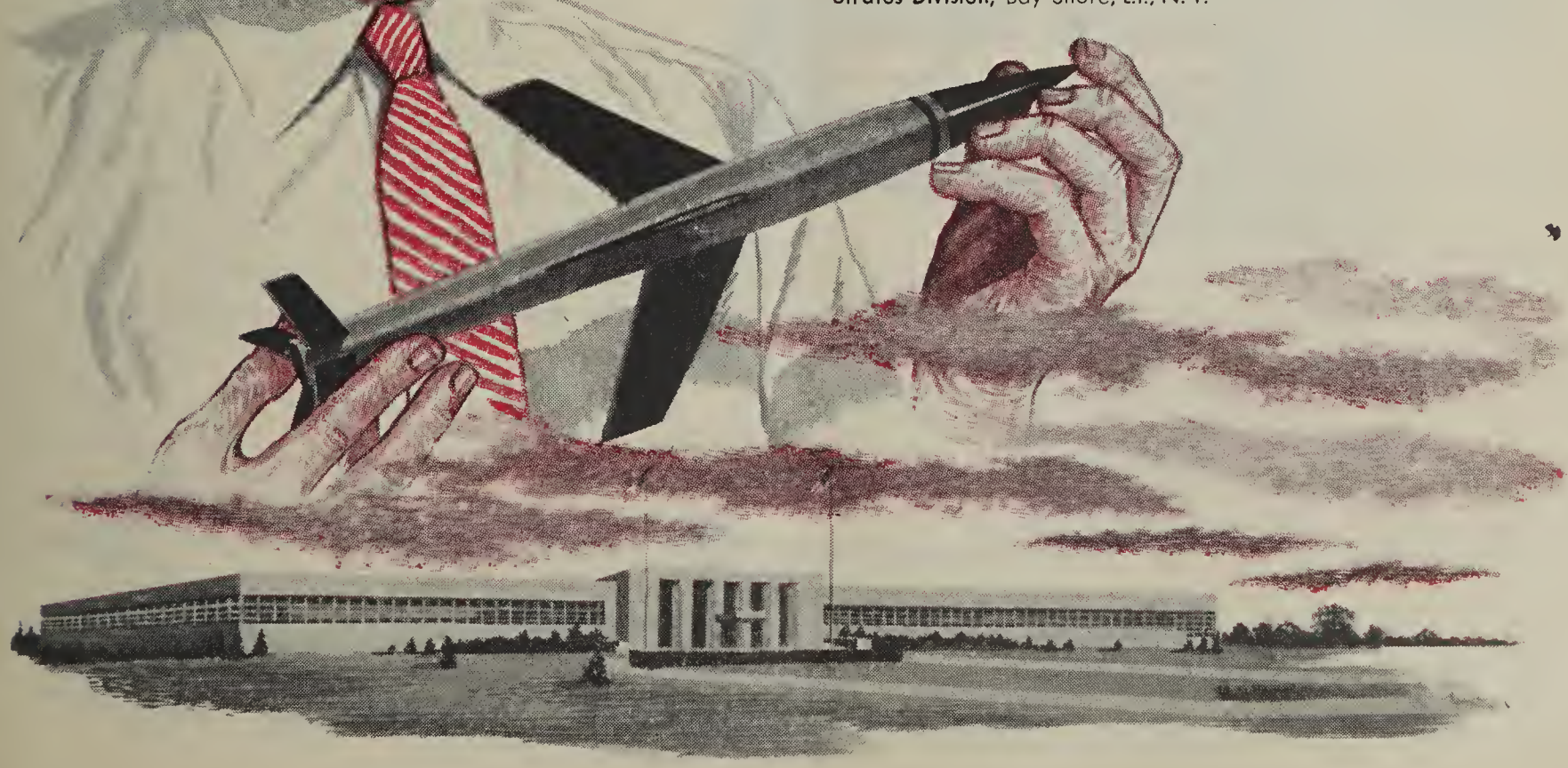
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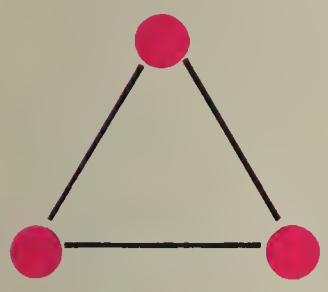
GENERAL J. LAWTON COLLINS

re-emphasizes the importance of clear and thorough understanding of the simple principles behind the Army's concept of organization and attack

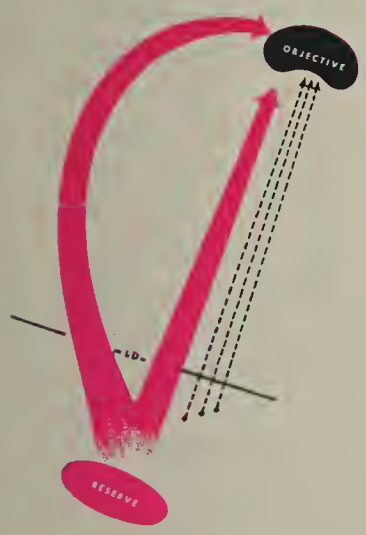


General Collins on Guadalcanal in 1943 when he commanded the 25th Division

STRESS THE FUNDAMENTALS



"We have incorporated this general theory of attack into the 'triangular concept'—three elements constituted alike."



"The final assault is the coordinated and combined effort of the holding element, the maneuvering element, the fire support element and, if needed, the reserve."



"Terrain analysis is particularly important in determining where the major effort is to be made, and I feel it should always be made through maneuver."

THIS year the Army will lose approximately half of its trained men. This means that we shall gain three quarters of a million new men. I want to be sure that these new men will, from the very beginning, grasp our principles of fighting and organization, particularly in small units.

These fundamentals hold the key to our success. We must know them thoroughly and stress them at all times, not only to our newcomers but to our junior officers and noncommissioned officers. For we will continue to have a great Army only as we continue to produce superb small units.

Superior squads make superior platoons, battalions, regiments, divisions. The spearhead of every attack is a small unit.

I want to re-emphasize here and drive home hard the simple principles behind our ideas of organization and attack, and the close relationship between these concepts and the analysis of terrain. I hope to tie these things together by a connecting thread to make them more easily understood.

The reasons underlying our doctrine of attack are well known to many of the older hands in the Army. We have heard and studied them many times. But primarily for

Army manuals and training directives are being rewritten to emphasize the fundamentals of tactics stressed by General Collins in this article.—*The Editors.*

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the benefit of our younger men, I want to repeat these principles.

If we analyze any attack, we will find certain things which must normally be done, whatever the size of the unit. They fall into phases, often referred to as the "four F's": "find 'em and fix 'em," "fight 'em," and "finish 'em." The first thing we must do, if we are not immediately in contact with the enemy, is to seek him out and to pin him down in position with fire power—we must "find 'em and fix 'em." I think this is really one operation, not two. We must know who our opponent is and where he is. We also want to hold him in place and keep him occupied, so we can carry out the rest of our plan of attack. This finding and fixing normally requires one element, one principal unit, of the commander's force.

When we have located the enemy and pinned him down, we then have to maneuver against one or another of his flanks; or if he is widely dispersed, it may be more effective to hit him in the middle. But more often it will be a maneuver around one flank or the other, so we need a second element in our force —a maneuvering element—for this "fight 'em" phase.

In the final phase we must drive the attack home, capitalizing on the envelopment or extending it, in order to "finish 'em." This last phase may require the use of the third element of our force, the reserve, though sometimes we can finish the enemy off without committing the reserve.

THESE three elements of a force must all be organized alike. For one time we will use one of them to find the enemy and pin him down, the next time we may use the same element for the maneuvering force, and another time it may be in reserve. The three elements must be interchangeable and naturally their organization must be the same.

"We will continue to have a great Army only if we continue to produce superb small units. Superior squads make superior platoons, battalions, and divisions. The spearhead of every attack is a small unit."

In addition to the three elements of any attacking force, large or small, which I have mentioned, we need one final element and that is fire power—heavy fire power which we can shift without shifting a lot of men and weapons. We need a fire support element, as I like to term it, to give us the fire superiority that will permit us to close with the enemy and defeat him.

The size of the unit does not change the concept. The principles are the same for a platoon, a company, a battalion, a regiment, or a division. In practically every attack, the troop leader is normally doing the things I've just described:

- He has to find and fix the enemy with an element that leads into the attack.
- He has to maneuver against him.
- He has to drive the attack home, possibly by using his reserve. And he must guard himself all this while by proper flank and rear security.

When his maneuvering force is up in position to make its assault, the full combat power of the attacking element is then brought to bear. The final assault is thus the coordinated, combined effort of the holding element, the maneuvering element, and the fire support element, and the reserve too, if it is needed.

That is the essence of our entire attack, in simple terms—the principles from which our attack methods and techniques stem. The right troop formations to use—the right weapons to use in fire support—exactly who will make the final assault and when—all these things must be decided right on the spot, after considering the factors involved. But the decisions arrived at must always be based on the principles I've outlined above.

Be flexible in your planning, in your use of formations, and in your orders.
Don't tie yourself to any fixed or stereotyped formation.
Be ready for anything—
Ready to catch the enemy by surprise through maneuver;
Ready to feint;
Ready to counter an enemy thrust;
Ready to slam home a knockout blow at the opportune moment.
Don't commit yourself too early. Adjust yourself to the situation which develops.
Probe the enemy carefully with only one element.
Avoid costly frontal attacks.
Keep your reserve protected and under cover until the opportune moment.

WE have incorporated this general theory of attack into our Army organization. We call it "triangular"—three elements just alike. Each infantry unit has:

- a finding and fixing force;
- a maneuvering force;
- a reserve force.

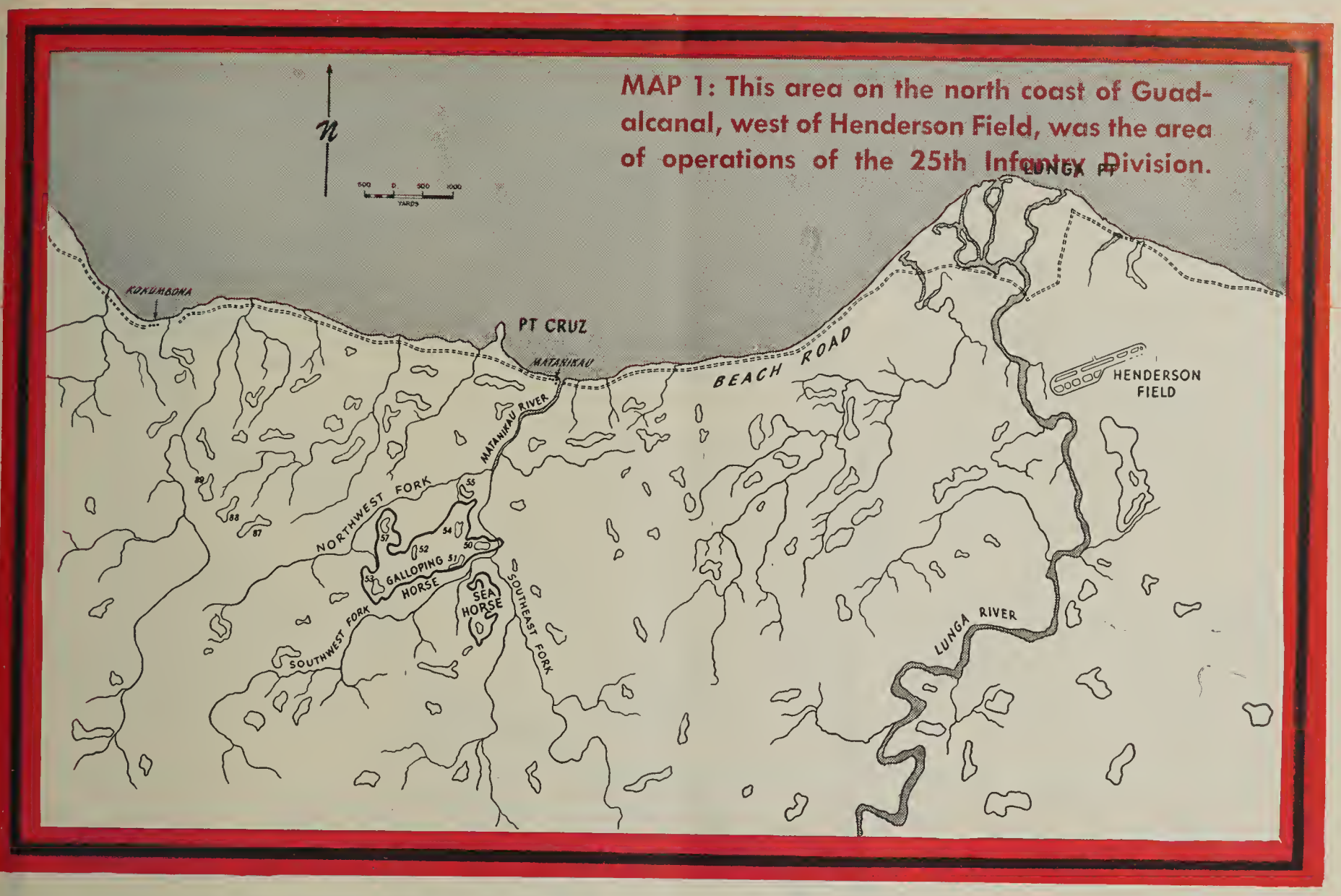
Each is interchangeable with the other.

There are three rifle squads in a platoon; three rifle platoons in a company. There are three rifle companies in a battalion, three battalions in a regiment, and three regiments in a division.

And besides these three like elements there is the other, different element—the fire support element—the commander's means of shifting fire power without actually shifting men. In a platoon this is the weapons squad. It is the weapons platoon in a company; the heavy weapons company in a battalion. And so on up the line to the division artillery in the division. And at practically every level, and certainly from the battalion up, this element may be supplemented by armor, by other artillery, and by tactical air support.

This is the basic infantry organization —the organization evolved to meet the needs of our American Army doctrine of attack.

There is tremendous advantage in this organization. Not only because it is sound in combat principle. But also because every new, young combat leader



MAP 1: This area on the north coast of Guadalcanal, west of Henderson Field, was the area of operations of the 25th Infantry Division.

can understand it easily.

When once a new officer or noncommissioned officer understands just how to fight a platoon, he then understands the principles for commanding a company, a battalion, a regiment, or a division, because there is no change in basic theory whatever, up or down the scale. The one difference is simply that the distances are greater, and this changes the logistical problem. But the tactical problem remains identically the same, whatever the size of the unit.

I have described the basic concept of attack—how one element leads into the attack and holds—how another maneuvers and closes—and how we follow through with a reserve. This is all pretty simple. We must keep on stressing its simplicity and soundness in every part of our training.

We must put these things across so every soldier, commissioned or enlisted, cannot fail to understand them.

AND now I want to address myself for a moment directly to every commander:

Our basic concept of attack gives every one of you a great opportunity to be flexible in your planning—in your use of formations—your orders.

Don't ever tie yourself to any fixed or stereotyped formation.

Instead keep yourself ready for anything—ready to catch the enemy by surprise through maneuver, ready to feint, ready to counter an enemy thrust, ready to slam home a knockout blow at the opportune moment. Don't commit yourself too early. Adjust yourself to the situation which develops before you:

—by probing the enemy carefully with only one element—by avoiding costly frontal attacks—by capitalizing on maximum surprise through maneuver—by keeping your reserve protected and under cover until the opportune moment, away from needless exposure to fire.

By doing these things you can avoid exposing your men to unnecessary casualties.

In brief, I want every commander of every rank to avoid any stereotyped form of attack. I am anxious to see you use economy of force whenever possible—in the initial phases of your attacks, and in your development of maneuver. I want you to cut down the exposure factor in your attacks.

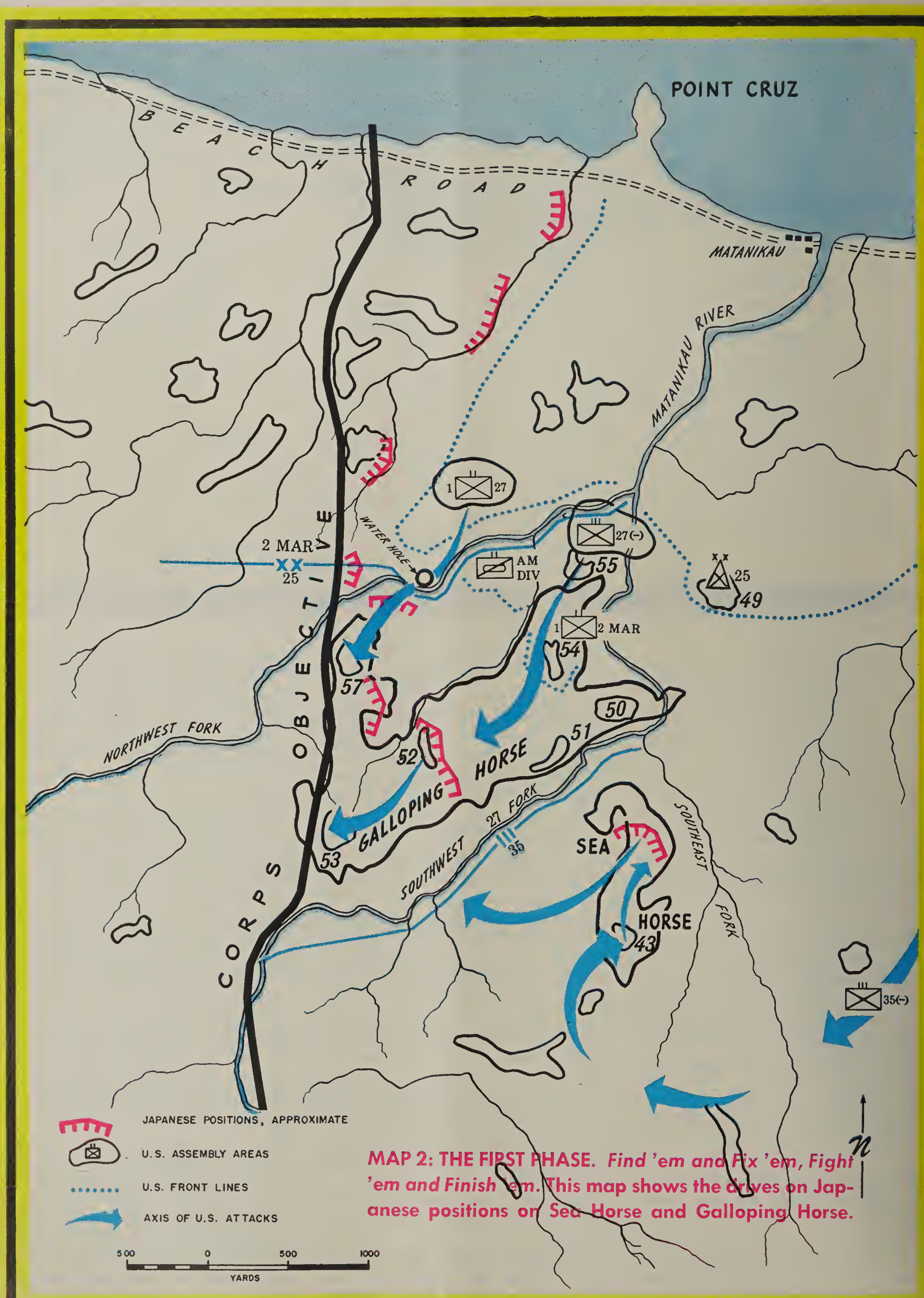
I want you to use our flexible organization to every advantage in every attack you make.

I also want to ensure that each man of our 750,000 new men coming into our Army this year understands these principles. Teach them fully and clearly to every single squad and section. It is vitally important for every fighting man in our whole tactical organization, every soldier and officer alike, to learn and understand from the very beginning, what our principles of attack are, and how they relate to our actual Army organization.

Every one of them needs to **know** how the elements in this organization are normally employed. And our more experienced leaders, both in large units and small, must continue to realize how important, how vital to combat success, these tactical principles are which I have described. And they must follow them in all their training—and in every hour of combat.

THE next major point I want to emphasize to all our new men, and equally re-emphasize to all our older hands, is how important it is to analyze the terrain most carefully, and use it most carefully.

In most attack situations, the commander must seize the dominant terrain to impose his will on the enemy. By dominant terrain I mean high ground, not hollows; ridge lines, not ravines; mountain ranges, not marshlands. Of course there will be some exceptions when logistical factors, or the need for communication centers or maneuver



MAP 2: THE FIRST PHASE. ***Find 'em and Fix 'em, Fight 'em and Finish 'em.*** **This map shows the drives on Japanese positions on Sea Horse and Galloping Horse.**

> ***"Fire superiority is gained by the skillful use of the fire support element or other support—such as artillery, armor or air—in conjunction with the fire of the holding or maneuvering elements. While our artillery or our air support cannot do the job alone, neither can our riflemen."***

room override this general guiding principle. But the man who gets the high ground first is the man in most attacks who gains victory at cheapest cost in men and matériel. Terrain analysis is particularly important in determining where to make the major effort. And I feel that this effort should always be made through maneuver.

After his careful analysis of the ground has been made, the commander should then use the terrain in his tactical plan to carry his operation farther. We must seize high ground and any other key terrain features before we can hope for success.

Our attacks to secure such dominating terrain should usually be made along the ridge lines running into this dominating ground, and not up the draws and ravines leading into the position. Attacking along the ridge lines, the attacker gains higher and higher ground—places for better observation and better locations on which to place his fire support unit.

Zones of action for smaller units or sectors indicated by boundaries between units and organizations—these must be established so as to favor maneuver and ensure that the dominating terrain and any such key feature as a village, lie well within the boundaries of a single unit. If the boundary between two battalions is a ridge line, which is itself dominating terrain, then obviously the responsibility for the whole ridge is in doubt.

Failure to grasp the fundamentals I've mentioned in this article is responsible, in my judgment, for a number of common errors which I have observed. First, there is the mistaken idea that fire superiority is gained solely by riflemen. This idea grows out of a lack of understanding of our fundamentals of organization. Rifle fire does help to gain fire superiority, particularly at the close-in ranges. But as a general rule, fire superiority is gained by skillful use of the fire support element and other available and appropriate support—artillery, armor, air—in conjunction with the fire of the holding or maneuvering elements. Our artillery or air support, or even both, cannot do the job alone. But neither can our riflemen.

Another pitfall, which comes from the fact that some of our junior leaders do not fully understand our principles of attack and the vital importance of terrain, is the tendency to depend time after time on the frontal attack instead of maneuvering around the flanks of an enemy position. Actually, frontal attacks must be avoided wherever possible. They are costly. They do not make full use of the tools which the commander has available.

AND now I would like to cite a specific case that points up examples of everything I have been discussing—the soundness of our concept of attack and our organization, whatever the size of the unit—and the vital importance of terrain analysis in every attack. A man can talk best about the things of which he has some personal knowledge and so my example concerns a division which I commanded in World War II.

Map 1, Page 13, shows the situation which my 25th Infantry Division faced at Guadalcanal. The Matanikau

Men of the 3d Battalion, 35th Infantry, maneuver through dense, trackless jungle in the envelopment of Sea Horse.



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Galloping Horse. *The head of the horse is Hill 53; Hill 55 the rear legs and Hill 50 the tail.* (*From* Guadalcanal: The First Offensive)

River flows into the sea to the west of Henderson Field. It has two main forks, the Northwest Fork and the Southwest Fork, and two smaller forks, all of which figured in our operation. Between all these forks there was high pampas grass which soon burned off. But in the stream basins between, there was very thick jungle.

The troops already there held the position shown on Map 2, Page 14. The only contact they had with the enemy was in the area shown as held by the Japanese, and on the series of knolls or high plateaus called Galloping Horse, so called because of the shape of these ridges on our aerial mosaics. The Japs also occupied some high ground to our immediate front which looked like a sea horse on our photographs, and was also accordingly named.

The general plan of the XIV Corps called for a holding attack and an envelopment of the enemy's south flank. Elements of the Americal Division and the 2d Marine Division were to make the holding attack. The mission given to the 25th Division was to make the major effort of the Corps, outflank the Japanese, and drive them into the sea.

THE first thing we were faced with was where and how to make this effort. We had a well-located OP, though we couldn't see too much of the enemy; but we knew about where he was. From the Division OP on Hill 49 I could look right down into the very deep gorge of the Matanikau. It was almost a sheer drop into the gorge. We had to decide —"Well, now, what are we going to do? Are we going to attack across this gorge —which will mean going right down into it? Or are we going to skirt it? Or just what *are* we going to do?"

When we reached Guadalcanal we were told by those already there that the fighting was something brand new. We could "throw the book away." I said to myself, "We'll see." For I knew that the principles taught at Benning and written into our manuals were sound. I was sure we could use them to advantage in this particular situation.

I wanted first to find out where the ridge line lay between the four forks of the Matanikau. I wanted to see if there was any route of approach at all which would enable us to avoid a frontal attack straight down into and across the gorge and uphill again. So I got into an airplane at Henderson Field and flew over the front-line area.

All I could see looking down on this jungle area was treetops. But I went back and forth over them until I was able to trace the ridge lines on the air map which I had right on my lap with me. It was rather difficult, but I was finally able to get a good picture of the ridge lines from the air. I made up my mind for certain that what we were going to do would be to use what I had been taught—and what I had been teaching—at Fort Benning.

We would use one regiment, the 27th Infantry, as the "finding and fixing" force *(Map 2)*, passing it through the Marines now there. One battalion of the 27th would jump off in the 2d Ma-

Under tropical skies and a camouflage net, the crew of a 105mm howitzer fires in support of the attacking forces



> ***"Our basic concept of attack is simple, but we must continue to stress its simplicity and soundness in all our training."***

rine Division sector. We planned to pound the hollow to their front from the air (the Northwest Matanikau Fork). Meanwhile, we would move two battalions of the 27th up to get a foothold on Galloping Horse while we held the attention of the enemy with the other battalion.

So while the 27th Infantry pinned the enemy down and held his attention, we launched the 35th Infantry on the enveloping attack. Two battalions of it clambered along the ridges shown on the map, under cover of the jungle, until they had turned the Japs' south flank. We ordered them not to shoot at all unless they ran into something. What I wanted was the capture of Sea Horse.

The third regiment, the 161st Infantry, was held in division reserve. We did not commit it at all, but left it in bivouac instead where it could get some rest. The regimental commander of the 35th Infantry also kept one of his battalions back in reserve in case anything went awry.

Our mission was made particularly difficult by the fact that we had no map of the area with any amount of detail on it. The units had to reconnoiter as they went.

ONE battalion of the 27th crossed the Matanikau at the Japanese water hole and seized the high ground on the foreleggs of Galloping Horse. Another battalion of the 27th pushed up the hind legs of the horse, captured the succession of hills to the horse's head at Hill 53. This pocketed all the Japanese in the large wooded area between the four legs of Galloping Horse and the northwest Fork of the Matanikau River.

Some of the maneuvering elements of the 35th got lost. But just the same they caught the Japs by complete surprise and captured Sea Horse with hardly more than a single company. And shortly after that we had two whole battalions sitting on Sea Horse, and we had successfully surrounded the Japs within the basin of the Southeast Fork.

AFTER these two maneuvers had worked so well, we had the 35th drive out (*Map* 2) to link up with other elements of the 27th whose mission was to take the successive ridges of Galloping Horse and finally Hill 53. The 27th had a hard fight to accomplish this.

Our flanking movements by the 35th Infantry and our attack by the 27th up Galloping Horse succeeded in pocketing the enemy forces in the valley of the Southwest Fork of the Matanikau. It became necessary during the operation to use some units of the 161st Infantry, our reserve regiment—in order to protect the left flank of the 27th as it fought up Galloping Horse, and in order to mop up the resistance in this third pocket of Japs.

I want to make it clear that we had *created* these three pockets of Japanese. We had done it by seizing the dominant terrain features in the Division's zone of action.

After we had the high ground the battle was largely won. When the Japs trapped in the pockets of the low ground wouldn't surrender, we annihilated them with artillery and air, then finally moved in to mop up.



Sea Horse. *The head of the horse is Hill 43; the neck extends north to Hill 44, the body.* (*From* Guadalcanal: The First Offensive)

THE *second phase* of this operation destroyed the last Japanese resistance on the island. It was interesting from a tactical point of view because it demonstrated the need to maintain complete

The maneuver successful, elements of the 35th Infantry dig in on Sea Horse.



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flexibility in both our planning and our operations.

The 25th Division was now assigned an objective that included Hill 87 and the ridges to the west of it. *(Map 3, Page 18.)* I decided to hold the enemy on Hill 87 by using the 27th Infantry as the "finding and fixing" force. The 161st Infantry would make the envelopment —outflanking Hill 87 from the south and then pushing on to Hills 88 and 89 without waiting for Hill 87 to fall. I kept the 35th Infantry in reserve and at the same time charged it with protecting the south flank of the Division.

But the Japanese weren't holding Hill 87 in force (as they should have done) and the 27th Infantry captured the entire hill before 1000 of the morning we jumped off. So the 27th was in a much better position to pursue the Japs than the 161st, and we had the opportunity to drive straight on to Kokumbona, cut the beach road, and trap all Japs in front of the division on our right. This shift in plan made it necessary of course to shift our division right boundary 90 degrees to the right, or else we would have been in the line of fire of the American units on our right flank.

There was now an excellent opportunity to exploit our newly won advantage and with the authority of the Corps Commander I directed the 27th Infantry to drive to Kokumbona followed by two battalions of the 161st. This left one battalion to secure the lines of communication of the 27th and mop up any enemy remaining south of Hill 87. By noon of the second day, the 27th had seized Kokumbona and established a block across the beach road, thus bottling up all Japanese to the southeast of it.

> ***"We senior officers of the Army in command of larger units must never lose sight of the fundamentals of small unit tactics."***

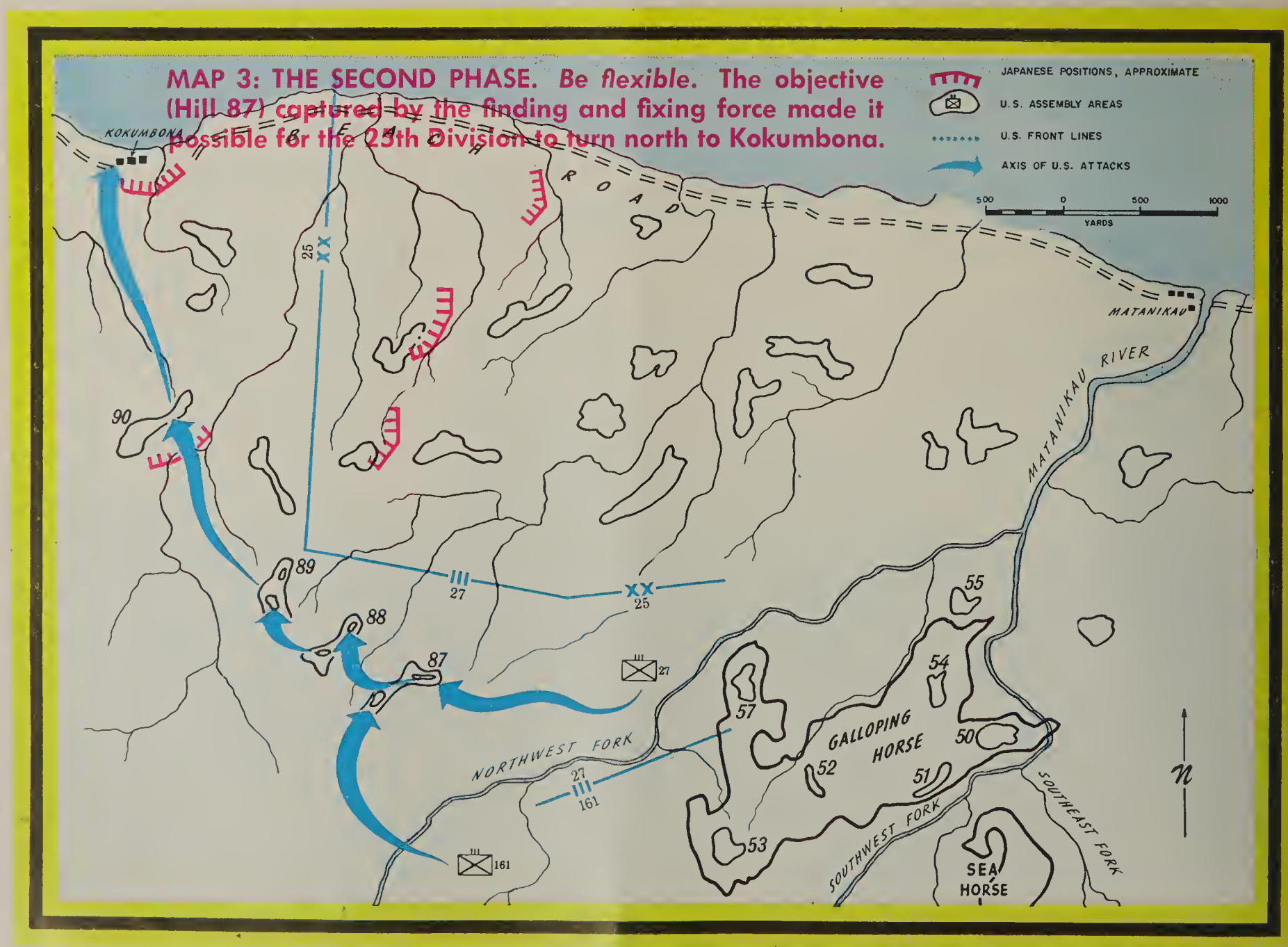
I give you this example to show that our planning and operations must never be stereotyped. Flexibility is of prime importance at all times.

It is also an example of how the principles I have been discussing are applied by a division. But they work just as well for a platoon or a company.

When I go out in the field now to inspect, I want to see in particular what the platoons, companies, and battalions are doing tactically. If an officer doesn't know how to command a battalion, he can never command a regiment, a division, or an army.

But if he can command a battalion well, he can command anything. For a battalion commander has essentially everything in his command that an army commander has. So if you will train good *platoon* leaders, good *company* and *battalion* commanders, I will guarantee you good divisions and a good Army too in the bargain.

And there is another side to the coin. Just as we expect our lieutenants to be ready to command battalions and our colonels prepared to command divisions, so also must we senior officers of the Army commanding larger units never lose sight of the fundamentals of small unit tactics. In that way our field inspections will mean more, much more—to the men, to the Army—and to the Nation.



PLANNING FOR DEFENSE

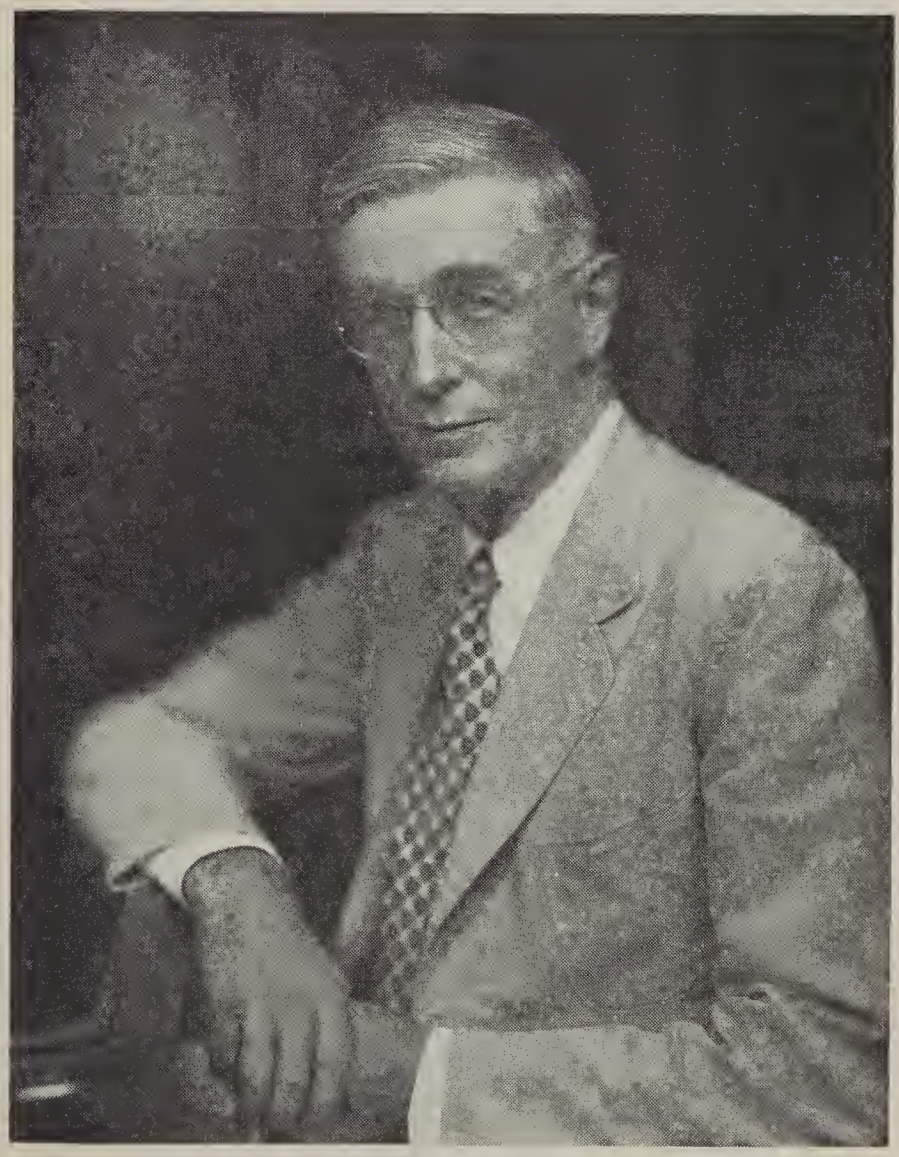
DR. VANNEVAR BUSH

"... our organization is not effective, ... this country is not in a position to do its military planning adequately and well."

ALL of our plans are dependent upon the success of one greater plan—our national plan for avoiding a great war or surviving if it comes—our military plan for our defense. And it requires more than simple planning or unsupported opinion to become so strong in every way and at all points that we of the free world will not be attacked, while maintaining our economic health on which all our strength depends.

I should like to be more specific as to the nature of the problems which need to be attacked by an adequate system of top-level planning for our defense. This is very hard to do, for it is difficult to put such problems in their proper perspective without presenting facts and conditions beyond those generally known. I have no inclination, of course, to attempt to solve the problems here, but merely wish to indicate their scope and nature, and I believe this can be done by an example.

This is a condensed version of an address by Dr. Bush on the occasion of the dedication of the Medical Sciences Building of the Mayo Clinic and the Mayo Foundation at Rochester, Minnesota, 26 September 1952.



DR. VANNEVAR BUSH

—President, Carnegie Institution of Washington, since 1938; Chairman, National Defense Research Committee, 1940-41; Director, Office of Scientific Research and Development, 1941-47; Chairman, Joint Committee on New Weapons and Equipment, Joint Chiefs of Staff, 1942-46; Chairman, Joint Research and Development Board, 1946-48; author *Modern Arms and Free Men,* 1949; described as "a man of character, energy and high intelligence" by the *Infantry Journal* in November 1949; to that can be added that his useful and selfless endeavors are the highest form of patriotism.

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We know that we have a stock of A-bombs, and its size does not matter much for this discussion. There is talk of an H-bomb—a bomb far more destructive than the one that fell on Hiroshima—and we know that a program for the development of such a bomb was instituted some two and one-half years ago. We know that Russia has tested A-bombs. There is no doubt that three A-bombs were thus tested, that they were genuine A-bombs, and that we should not be misled by comforting speculation to the contrary. It is reasonable to suppose that Russia has an H-bomb program and is accumulating an A-bomb stockpile. We know that, if war broke out in Europe, Russian armies would greatly outnumber the forces of the free world and would have the support of a great air force. We have recently been told that the attempt to halt such an aggression would be much aided by tactical use of the A-bomb, delivered principally by tactical aircraft. We know that we have a strategic air force poised to retaliate and to strike the bases on which an enemy army would ultimately depend for its continued progress. It is clear that this works both ways and that our cities might be attacked by A-bombs; and so might our lines of communication by which we should have to support our armies and our allies. We have a very expensive aircraft program, some aspects of which have been recently criticized, but it is certainly a large part of our national effort. Air forces can be used in three main ways: for strategic attack, for tactical use in support of armies, and for defense of our cities and communications. Each of these uses requires great paraphernalia in the form of bases, radar systems, and supply. In the light of all these conditions and many more, we can state the nature of a military decision of great moment, a decision on the wisdom of which our whole future may depend. What relative weight should be devoted to each of the three uses of our potential air power? How much of our effort and money should we devote to strategic bombing, to tactical use of A-bombs, and to air defense?

One can readily dispose of extremes. To put all our effort into strategic bombing, while leaving our cities wide open and our armies overseas vulnerable, would not make sense. To devote all our effort to defense alone, to rendering this country nearly impenetrable so that very few bombs could reach our cities, would be to fall into the Maginot Line complex; for no war was ever won by remaining entirely on the defensive.

A sound decision on relative emphasis affects all of us very profoundly. Such a decision can be reached only by a competent professional body, after earnest skilled effort, with no prejudice or preconception, with all facts and opinions available to it, and with a determination to find the solution which most contributes to the security of the country. It is the organization for producing such a decision that we must have, in the best possible condition to function accurately and well.

We cannot examine our military plans here. In fact they cannot be examined in public at all without giving aid to a potential enemy by revealing our strengths and weaknesses and by enabling him to profit from our technical advances. We cannot even lean upon our elected representatives to examine these plans fully; for they involve military and technical phases of great complexity, beyond the genuine grasp of those who perforce deal with them from a background in quite remote fields of professional activity. It is nevertheless essential that these plans be sound and that we have confidence in their soundness. The setting of broad national policy today must be based on sound military planning, and this is an exceedingly difficult thing to accomplish.

There is one thing that we can do. Although we cannot examine the plans themselves, we can examine the way in which they are being made. We can examine the organizational machinery by which our military planning is evolved.

That is what I propose to do with you now. For I am convinced that our organization for this purpose is not effective, that this country is not in a position to do its military planning adequately and well. I can only touch upon the matter briefly. Its full examination would require volumes and much assiduous thought by many men. We can however delve toward the heart of the subject.

Let me state forcibly at the outset that this is not an attack on anyone. I am assigning no blame and seeking no scapegoats. No political overtones to what I have to say are intended, for members of both parties have been about equally involved in the development of the laws and procedures under which our planning is conducted. Nor is this an attack on the military mind or upon any military man or group of men. The military men of this country are able and loyal, and they are hard-working and intelligent. A cross section of military men will reveal the same spectrum of individual characteristics as a cross section of members of Congress, or a university faculty, or a business community, or group of skilled machinists at the bench. Military men are not obtuse or of unduly rigid minds, and we should not forget that they devote their professional lives to our protection. But, in planning, they have been placed in an impossible framework for working effectively. The system is wrong.

I WILL speak only of military planning. Beyond military planning is the organizational machinery by which national planning is conducted and national policy is set. This involves the National Security Council, which brings together in support of the President the web of military considerations, international relations, economics, and intelligence. Here, too, is a problem; for, while it was a wise move to establish the National Security Council, that Council does not as yet work with full effectiveness. But certainly it cannot operate well unless one phase of its work upon which it naturally depends is well done in all respects, and this central phase is military planning. This alone we shall consider and only briefly.

Our military planning centers in the organization of the Joint Chiefs of Staff, which operates under the terms of the Unification Act. There are many other planning centers in the defense organization. But no planning at any level can work well unless the top planning is in good order. It is not.

It is readily possible to write down a set of principles which should govern any well-ordered organization, especially a military organization, and few will quarrel with them. The list could be long, but I shall mention only the following major items:

(1) The military organization in our democracy must be subordinate to the civilian authority.

(2) Authority and responsibility must go together.
(3) There is need of a staff for advice and there is need for a line of command. These elements must be kept separate. Parallel lines of command must be avoided.
(4) Any person carrying enormous responsibility must have available prompt advice from a competent, loyal staff and must be able to issue his orders through subordinates of his own choosing.
(5) The entire organization should focus in the Commander in Chief, execute his decisions, and carry out his delegations.
(6) The effectiveness of functioning should be reviewed by elected representatives, who control the public purse, who ensure that the organization is well manned and works well, but who do not superimpose their judgment on that of professional men.

Our present organization, at the top levels in the military establishment, violates many of these principles and could possibly violate them all.

WE have confusion. The Joint Chiefs of Staff reports both to the President and to the Secretary of Defense. Decisions of JCS become implemented in the Services in two ways: one through the Secretary of Defense and the Secretaries of the Departments, the other directly to the Services by action of members who are the commanding officers of those Services. Thus there are two lines of command, and the control by the civilian Secretaries is to some extent circumvented. JCS is understaffed for its duty of planning and advising the Secretary. Its Chairman has no authority. He cannot resolve disagreements. He cannot even select the membership of subordinate planning bodies in the JCS supporting organization. The members of these subordinate bodies are supplied by the Services with an eye to the protection of their special interests. Junior officers serving JCS are offered no substantial career except by return to their services; and they are discouraged.

JCS was intended as a staff, to furnish sound recommendations to the President and Secretary of Defense. Yet, when it disagrees, there is no one to resolve its differences except the Secretary himself, who naturally hesitates to decide a strictly military matter. As a result JCS does not attempt to resolve questions which primarily affect one department. Important programs go to Congress, and into effect, without having received any review whatever by a competent, disinterested, professional body, but merely on the basis of urging by protagonists. Military planning today requires the participation of professional men from other fields, science, business, human relations. Yet JCS does not bring such men into its deliberations.

The account could be extended. Our top military planning agency does not operate well for its intended purpose. It dips into matters it should avoid, it fails to bring well-considered resolution to our most important military problems, and it fritters away its energy on minutiae.

Now it did not get into this state because of the machinations of groups having selfish interests, or because of lack of thorough consideration at the time the law was passed, or because of lack of intelligence. It came into its present state because of the conflict of powerful streams of thought and action, because there were wide differences of opinion as to its proper constitution and function, and because compromise produced confusion. Two of these streams of thought were notable. They were both advanced by able and honest men, keenly seeking the best public interest. They were both fundamentally right in their central consideration. As we look forward we cannot seek a sound solution without taking them both into account.

When unification was first advanced, just after the war, there were many who feared it would destroy the *esprit de corps* of the several Services. There was talk of a single uniform, of a single line of command that would split only at low echelons into army, navy, and air. Nothing could be more foolish. We do not wish to sacrifice the pride, the tradition, the solidarity of our fighting Navy, which has carried this country through many a crisis even when confronted with public lethargy. We do not wish to suppress the enthusiasm, conviction, virility, of our Air Force. Nor do we wish to dilute the determination and courage of the Army, which takes the brunt of battle on the ground. We need to control and co-ordinate. But unification should not discard the precious assets which reside in pride of service and professional accomplishment. Those who struggled against discarding these assets were right; yet, unfortunately, their resistance produced a weakening of the organization rather than a clarification of its real purpose. The danger they justly feared is now largely a thing of the past.

Second, there was the fear, deep-seated in American thinking, that the military might evade the reality of civilian control. There was in Congress the fear that one military man, commanding all of our men in uniform, would be so powerful that an ambitious and ruthless officer in this post could defy the regular precedure by which our democracy functions. There is no sense in attempting to brush this aside as an idle fear; it is deeply imbedded and it has historical basis. It becomes enhanced when our military effort grows to its present size. Nor is it of any use to assert, as is indeed the case, that most military men fully accept the principle that in a democracy like ours, the military organization must be subject to the control of the elected, civilian representatives of the people. It is no solution merely to assert that military matters should be judged by military men, and civilian matters by civilians; military and civilian matters are in these days too closely interrelated. We should not ignore, however, that there is something to be said on the other side. There is danger when civilians exercise arbitrary decision in the military area; anyone who ignores this point forgets the example of Hitler. Congress, in its consideration of the Unification Act, struggled with these matters, but it did not erect a sound organizational structure. In the fear that JCS would be too strong, it weakened it, even for the performance of those duties which it alone can perform. In the fear of concentrating power Congress left ambiguity in regard to the lines of command.

Having said this I should return to my assertion that I am not criticizing any individual. And I would not have you feel that JCS has accomplished nothing. Burdened down as the chiefs are by calls from the public and Congress, carrying great responsibilities in their own Services, operating under an imperfect law, it is a wonder that they have accomplished anything whatever. Moreover, the relations between our Services in field commands are more cordial and effective than they have ever been before. There is a close and friendly relation among the entire group of Secretaries in the Pentagon, and we wish to keep it so. We are not accomplishing nearly enough in our planning, but that does not mean we are accomplishing nothing. It certainly doesn't mean we have incompetents in high office. In fact we have reason to be proud that Americans have been able

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to sink their individual differences and service loyalties to the extent that they have, in order to produce performance in the public interest in spite of the bewildering maze of defective relationships. In order to do better we need to provide a framework within which sound accomplishment is far more possible than at present. Then we can really witness and applaud results.

NO two people would prescribe the same revision of the present structure in every detail. There are points which require careful public discussion for their wise resolution and consideration by groups of men who can analyze and draft legislation outside the spotlight of political agitation. There are, however, many points on which most groups would agree, and a skeleton of organization can be delineated which meets at least some of the points where the present structure is faulty.

The President is the Commander in Chief. In these days it is essential that his burdens be lightened wherever possible. He should, therefore, control the military establishment through a Secretary of Defense, selected by him and loyal to him. There also need to be three Secretaries of Departments. They should be appointed only with approval of the Secretary of Defense. All orders of the Commander in Chief on military matters, or of the Secretary of Defense acting for him, and all delegations of authority, should proceed through these Secretaries of Departments to their respective Chiefs of Staff for execution. Along this path there should always be the right to protest, to present contrary views; but there should be no doubt whatever that this is the sole and controlling line of command from the civilian authority to the entire uniformed organization.

The Joint Chiefs of Staff is the senior military planning agency. Its sole duty, as a body, should be to advise the Secretary of Defense and to recommend action to be taken by him or by the President. JCS should not itself exercise command directly or indirectly. The law should spell this out so positively that it cannot possibly be misunderstood. In particular, for JCS to come to informal agreements that will be implemented by its members in their other capacities without reference to any Secretary should be clearly recorded as an avoidance of the intent of the law.

Having made clear that JCS is a staff and is not in line of command, the law should then greatly strengthen it. Its chairman should be appointed for a four-year term by the President and should be the most able military officer in the entire establishment. He should approve all appointments to the JCS organization, which should be enlarged, and to its subordinate bodies. For junior officers who make outstanding records there should be a career open which is not dependent upon the currying of favor within their particular Services. One such opportunity should lie in an effective personal staff to the Secretary of Defense. The chairman should be empowered to retain outstanding professional men of diverse backgrounds from civilian life to aid in JCS deliberations. In case of disagreement the chairman should present to the Secretary the opinion of each member of JCS, together with his own opinion and recommendation. The agenda of JCS should contain only items placed there by the Secretary or with his consent. In general these should include all military and associated matters with which the establishment as a whole is concerned, in contrast with matters which are internal in a single department, except those for which separate channels are provided through such bodies as the Munitions Board and the Research and Development Board.

It has been suggested that the members of JCS should not be the chiefs of staff of the respective Services. Rather we should provide for two very senior officers in each service, one commanding the entire uniformed organization of his department and the other serving on JCS. Each would be an officer of great distinction, for whom the assignment would usually be the last before his retirement. This arrangement would have the great advantage of positively separating the staff and the line of command, without calling upon individuals to keep the distinction clearly in mind in all their daily acts while they serve in two capacities. It also spreads the heavy burden. This suggestion has much to recommend it. The only trouble is that it will be difficult to find enough officers of the requisite stature and judgment for the heavy responsibilities of these posts. Yet we have many fine officers. One of the notable features of the recent war was the extent to which great military leaders rose among us to assume leadership with a skill that excited the admiration of military men throughout the world. If there is the slightest doubt whether staff and line can be adequately separated, this dual feature should be introduced in the new legislation.

The Secretary of Defense, on receiving a recommendation on a strictly military matter, will ordinarily implement it through channels without question. But most of the highly important military recommendations inevitably involve other branches of government. On these the Secretary becomes the representative of the Department in the Security Council, and action by the President will follow recommendations from that body. When the military content of a recommendation is prominent, the Secretary should have it presented directly by his military supporters; but he should not be constrained by law to do so.

This is a bare outline of only part of the problem. There are many ramifications—on purchasing, budget-making, evaluation of weapons—which need to be formulated to an extent not possible here. But we might pay attention to two points where difficulty is most apparent.

WHEN we have a combined force in the field, as we now have in Europe and in Korea, it has proved essential that there be a single field military commander who unites under him Navy, Army, and Air. There is no question that he should be appointed by the President upon the recommendation of the Joint Chiefs of Staff, transmitted through and concurred in by the Secretary of Defense. His broad instructions should be given to him by the President, with the advice of the Security Council, and his military orders should be written by the Joint Chiefs of Staff within the political framework laid down in those instructions. But to whom should he report? Only to the Secretary of Defense and the President; for if he reports to JCS, we have the beginnings of the sort of military hierarchy which we justly refuse to tolerate. Certainly JCS should have full knowledge of all that occurs under his command, and certainly it should be free to recommend alterations in his orders, or his replace-

ment, if circumstances warrant. But direct orders, no. We cannot afford to give up civilian control of matters that are full of political implications and consequences. Neither do we wish to have a war run by a committee. But we do need constant professional analysis and evaluation. As far as the subordinate commanders in the field are concerned, there is no great problem. For their assignments and missions, within the framework of the general orders, they turn to the field commander. For all acts concerned with their functioning in accordance with these instructions they turn to the Chief of Staff of their own service. It is not unusual for officers to take orders from two sources with clearly defined areas of authority. Nor is it unusual for an officer to occupy simultaneously two posts with widely different duties, responsibilities, and modes of action, as the individual Chiefs of Staff are called upon to do when they simultaneously command the uniformed organization of a department and serve in an advisory capacity on the Joint Chiefs of Staff.

ANOTHER great problem is involved in relations between the military and Congress. It is much too large a question to be examined fully here, but there are portions of the relationship which affect the proper functioning of the top organization profoundly. In essence Congress establishes the law under which the Executive branch operates. It then reviews performance and exercises basic restraint through its control of the public purse. There is a tendency for it to go much farther and to enter directly into management and into the making of military decisions, for which it is not as a body qualified. Some of this has been due to a feeling in Congress that plans are not being well formulated and executed, and that hence it must interfere in the public interest. Certainly, there is basis for this feeling at times. But the cure lies not in interference; it lies in reorganizing the machinery to produce sound results. There need be no less of rigorous examination with this broader objective in mind. Let us here consider, however, only one phase of the broader objective. Ideally, in a military organization especially, there should be unrestricted argument and presentation while a policy is being formed and a decision approached. But when once made by competent authority a decision should be loyally supported and effectively carried out even by previous dissenters. For an army in the field this is utterly essential and is well adhered to, although the decision is often of necessity much abbreviated. But what of the great decisions of uneasy peace, on the wise implementation of which our whole safety depends? Are we, on the one hand, going to argue military matters in the public press and before Congress and thus bring such pressure to bear that the duly constituted organizational machinery is circumvented and weakened, with the result that military decisions are made by a body of opinion which is bound to be uninformed as to some of the essentials? Or are we to have a rigid machine which is not to be tampered with, even if it is felt to be stodgy and reactionary and repressive of initiative and brilliance? Neither extreme is attractive. There have been times in our history when we have approximated the latter situation. In recent years we have come dangerously close to the former. Certainly Congress should insist on hearing all sides of important questions in an orderly manner, and it ought to be able to guard essential secrecy while doing so. There is no inconsistency between such action on the part of Congress and measures that will render it crystal clear that the control by the Secretary of the Department of Defense is not to be circumvented by the protagonists who would prefer public acclaim to the rigorous review of objective analysts and judges. As the law is revised, this aspect of the Secretary's control could well be emphasized. As matters now stand, in the struggle for appropriations, there is danger that we shall have very few secrets left to guard about the presence and essential characteristics of the new weapons we are developing; for there is altogether too much tendency to tell the public, and hence a potential enemy, how well a department is performing its function in developing them. But if Congress insists that the planning machine operate effectively, that it be in the hands of capable personnel able to rise above narrow service interests, there will be far less reason for direct appeal to the public on controversial matters of a military nature, with all of its concomitant dangers.

One of the greatest dangers of our present system of planning, in its ineffective state, is that it tends to become too conventional. And this is the very thing which we cannot afford to have happen. There have been important military developments since the end of the war. There are weapons of which the country knows nothing and concerning which it will learn nothing here. But there is much more to a new weapon than the mere development of a properly functioning prototype. Its introduction into use requires its integration into planning, procurement, field trials, training, and much more. If war should break out in Europe, we need not and should not plan merely to meet hordes with equal hordes. We must be well in advance in the nature of our weapons and the skill with which we use them. Moreover, we must realize that when the nature of certain new weapons becomes generally known, they can be used as effectively against us as for us. The planning that is essential to render our fighting forces thoroughly modern in their methods and equipment extends through many echelons of the whole complex military structure. But planning in the lower echelons will not be done with resourcefulness and initiative unless those qualities are inspired by the planning at the top. This is one of the many reasons, and a very cogent one, why we should be sure our house is put in order. We have many skilled, flexible military officers who are capable of as advanced thinking in this field as is ever possible. The organizational framework within which they now operate just does not function adequately for its intended purposes.

THE very existence of our adventure in striving for better living is threatened from without. The advancement of science, which gives us hope as we move forward in the conquest of disease, also renders the external threat immediate, appalling in its potentiality for destruction and complicated for those who plan for our protection in the military sphere. We should do well to make sure that the machinery of government, the form of organization under which they perform their duties, is in such order as to give them the best opportunity for success in their efforts. For, if we do not plan well, we may not plan long in any sphere.

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Promotion Problems

Don't blame "personnel" for injustices in promotions. Laws and regulations create unintentional inequities and restrictions

WE might all go slow about criticizing the handling of Army promotions. There are real reasons—and sometimes half a dozen good ones—why things have been done as they have. Let's take just one case.

A fine able officer of almost ten years' total service has been a lieutenant colonel for about nine years of that time. A superior man and no question about it. But should this officer be promoted to colonel in the next batch that moves up to that grade? Or should men as good as he is, with 20-odd years' service, though with less time as lieutenant colonels, be promoted first? This is just one out of hundreds of different specific questions that face the personnel people every day, and will keep on facing them for a long time to come.

Whose fault is it? Nobody's. One of the first things that threw the promotion situation badly out of kilter was the fact that many able Regular officers fell behind others of the same rank and service simply because they weren't in the right spots for wartime temporary promotion. Perhaps one of the worst examples of this came in the grade of lieutenant colonel of field artillery. In proportion to the rest of the Army, tables of organization spaces for colonels of Field Artillery were very few. The branch had large numbers of battalions and small numbers of groups and few full colonels on staffs. As a result many fine field artillery officers were stuck in the grade of lieutenant colonel all through World War II and are now way below others of the same original date of commission. The same sort of thing could also happen in any grade, when some able officer stayed on duty at some remote station during most of the war. Somebody might have tried harder to correct this situation while the war was on, but anybody in personnel work during the war will remember how much grief there was just in keeping up with the tremendous amount of routine work involved in building our Army officer corps to its maximum of nearly 900,000.

IT seems unquestionable that for years to come many individual officers are going to feel that their promotion deal isn't what it ought to be. But after looking into the details of the tremendously complex problems that still exist today, we feel well satisfied that the promotion situation for every rank today is infinitely better than it has ever been in the entire history of the United States Army.

Today promotion up to the grade of lieutenant colonel is assured to any officer who maintains reasonable standards of performance and behavior. Less than twenty years ago, officers who had already been second or first lieutenants for a total of 12 years seemed certain to continue to be lieutenants for at least 15 years more. The situation was little better for captains and majors. There was one tremendous (in proportion) World War I "hump" which would apparently force thousands of officers to remain captains till they were 60 or so, and then rapidly become majors, lieutenant colonels, and possibly colonels in their three or four remaining years of service. Many wouldn't make the grade of colonel, even by 64, which was then the regular retirement age.

You can put today's promotion situation most favorably beside the promotion situation of, say, 1922 or 1932, and you can go back still farther into the 80s and 90s of the last century, and before that, to the day when it was not unusual for an officer actually to serve over 20 years as lieutenant.

We are also entirely satisfied that there is not a single problem of promotion that the Army Department G1 people have not faced and done their very best to solve. We should remember, too, that this office is not all-powerful in these matters. Laws of Congress, some not sought by the Army—actions of the Bureau of the Budget strictly limiting the numbers of possible promotions, and other high influences frequently tie the hands of the Army authorities as they try to establish maximum justice in promotion.

We'll say a final word about the higher grades. Something like 5,000 Regular Army colonels are authorized today and about 500 generals. So it works out that about one colonel in ten becomes a general. This is somewhat better than it has been in the past. Also, now as in the past, the honorable career of a commissioned officer begins at the grade of second lieutenant and ends at the grade of colonel—with exception of the one in ten selected to go on to still higher rank. In short, though some may feel sharp disappointment at never reaching the grade of general officer, not the remotest degree of discredit or disgrace can be attached to any failure to do so.

Selection of Lieutenant Colonels

The latest report of a selection board that raised the doubts and squawks of some was in the release of the list of names of lieutenant colonels recommended for promotion to colonel. Some younger lieutenant colonels felt they were "passed over" unfairly and *The Army, Navy and Air Force Journal,* which customarily keeps close tab on promotions, reported that it had received a number of letters of complaint.

The A-N-AF Journal's explanation was, as we noted above, that the Officer Personal Act of 1947 requires (in Section 515 [c]) that "action . . . shall be taken on a fair and equitable basis, regard being given to seniority, age and selection based upon ability and efficiency . . .".

How it worked out in the selection of lieutenant colonels for promotion is shown in the breakdown *The Army, Navy and Air Force Journal* made by USMA classes:

1934 Class—139 considered for promotion; 113 selected.

1935 Class—165 considered; 134 selected.

1939 Class—141 considered; 57 selected.

1940 Class—92 considered; 8 selected.

1941 Class—11 considered; 2 selected.

Observed *The A-N-AF Journal,* "These statistics seem to indicate two facts: (1) that age and experience counted heavily; and (2) that promotions were given to a number of outstanding officers with relatively short years of service."

There will undoubtedly be readers who may not share the above opinions fully. *We would be glad to have any number of letters discussing specific or general cases.* We will do our best to obtain the answers for you.



It's not new but Napalm is an all-purpose

WONDER WEAPON

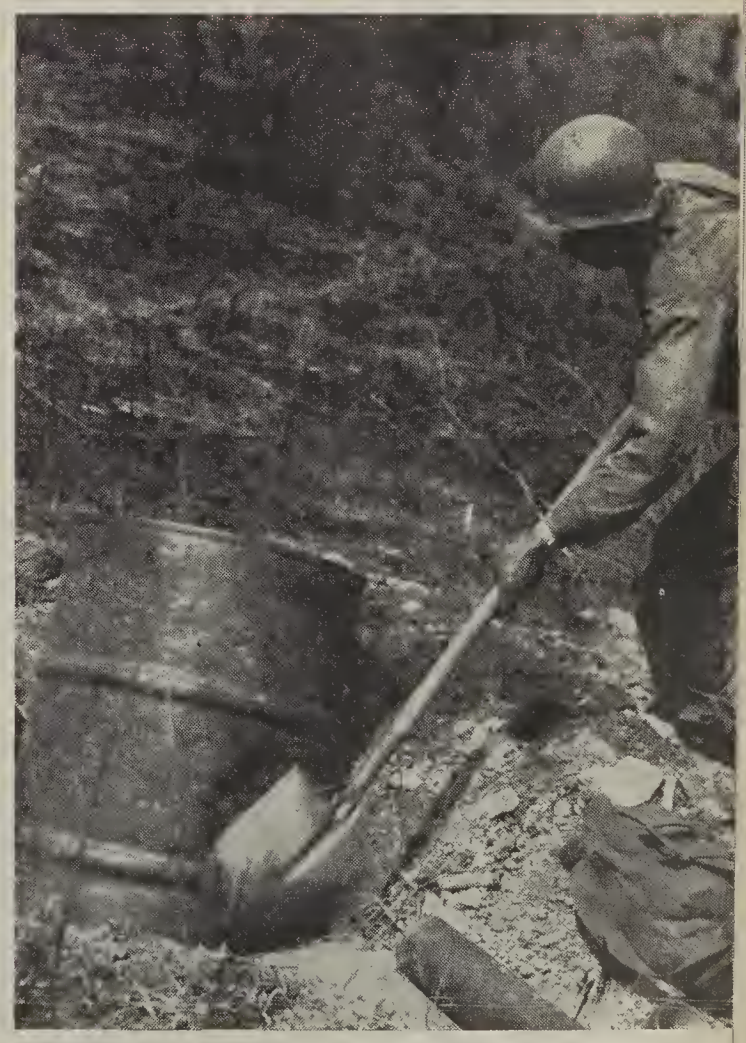
Major General E. F. Bullene

EIGHTH ARMY troops driving northward above the 38th Parallel in Korea in the spring of 1951 were ordered to take a hill overlooking a highway leading to the "Iron Triangle." They moved in, kicked out the defending Chinese Reds, and set up a defense perimeter. Except for occasional sniping, the war quieted down on that hill that afternoon, but activity in the hills to the north indicated that the Reds were massing for an assault that would probably come before dawn.

The attack came—with all the fanfare of a circus parade. The yelling and bugle tooting of the Chinese was almost immediately drowned out by the noise of our machine guns, BARs, rifles and artillery. It seemed impossible that anything could have gotten up that hill, but the Reds did. In the flash of exploding shells the whole mass of them could be seen a hundred yards below the line and coming fast.

Suddenly geysers of flame erupted along the defense line, a flame so hot the American soldiers ducked to shield their faces. In just a few seconds, the flames billowed out, merged into a solid wall along the perimeter and engulfed the Reds. The shooting halted abruptly, and, moments later when the flames died down, the enemy was gone. Soldiers turned to each other in wonderment at what had happened, but one small group in the know was saying "Looks like it worked."

What had worked was a new wrinkle in land mines. Chemical Corps troops had buried 55-gallon drums just below the surface of the ground at points along the perimeter. The drums were filled with napalm jellied gasoline rigged to white phosphorus grenades wrapped with several feet of primacord, and "booby-trapped" to trip-wires along the ground. When the Chinese hit the trip-wires, the primacord blasted flaming



A combat engineer in Korea digs in a drum of napalm for use as an antipersonnel mine in front of a defensive perimeter.

MAJOR GENERAL E. F. BULLENE, Chief Chemical Officer, entered the Army in 1917 by transfer from the Navy, in which he had been commissioned following graduation from the Naval Academy in June of that year. He served in the Cavalry until 1925 when he entered the Chemical Warfare Service. During the Second World War he served on the then secret San Jose Project in Panama—on the use of chemical agents under tropical conditions—and made several special missions to the European Theater. In July 1945 he became Chemical Officer, U. S. Army Forces in the Western Pacific. He has been Chief Chemical Officer since February 1951.

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Chemical Corps men of the 24th Infantry Division in Korea mix a batch of napalm for use in an antipersonnel mine. The sergeant is pouring the napalm mix into the barrel as his assistant stirs it into a jelly.

gasoline all over the area, throwing a wall of fire in front of and over the attacking Chinese.

This "land mine" idea also served another purpose. Since the Reds showed a preference for making mass attacks at night, the normal answer was to light up the battlefield—especially if the Reds could be caught out in the open as they attacked. Napalm burning in cans—ranging from the grocer's No. 10 size to 55-gallon containers—lights up a wide area. A 55-gallon drum of napalm will burn practically all night.

This use of high-viscosity gasoline as a strictly defensive weapon substantiates the contention that napalm is a formidable all-purpose weapon.

THROUGHOUT the Korean conflict, napalm-fueled flame throwers and fire-bombs have been called into use as the one sure-fire means of combating the enemy when "conventional" weapons failed. Before the truce talks began, the use of napalm land mines and flame-throwing tanks stopped a number of the bloody massed attacks and often discouraged the attacks before they started. The Chinese do not like to attack a position that has liquid fire.

Before Pearl Harbor, U. S. Army Chemical Corps technicians found that burning gasoline can be deadly if the flames can be gotten inside an inclosure, or if it can be made to burn outside the inclosure for several minutes. This required a gasoline thick enough to be aimed at a specific small target, but with a relatively slow combustion rate. The Chemical Corps tried thickening gasoline with rubber and magnesium, both of which worked well, but were in short supply. After many trials and tests, our scientists finally settled on a mixture of aluminum naphthenate and certain fatty compounds of coconuts.

From these came the name napalm; the *nap* from the naphthenate and the *palm* from the coconut palm. Napalm, as applied to jellied gasoline, is actually a misnomer, since napalm is merely the mixture that makes the gasoline gel.

Napalm itself is a dirty-white substance resembling a low-grade soap powder. It can be mixed in the field by adding it slowly to the gasoline while the whole batch is stirred vigorously. Initially, the mixture takes on a lumpy appearance like applesauce, but after aging for several hours, it smooths out to look like Jell-O: the final coloring ranges from brown to pink, depending on the gasoline used. Although napalm can be mixed in the field, it has the disadvantage of being hard to pour and must sometimes be forced into the flame throwers or fire-bombs with hand pumps or by compressed air.

THERE are so many variables involved in shooting a flame thrower that even a trained operator isn't always sure of what will happen when he cuts loose. One characteristic of napalm that has long puzzled everybody is the fact that an ignited jet of the gel will travel anywhere up to twice as far as an unignited shot. In tests, ranges have been obtained with ignited jets that were actually greater than the theoretical maximum range for an unignited jet in a vacuum. Some explain the apparent "built-in jet effect" by saying that the burning gas creates an updraft which boosts it higher as it goes along, but they can't say why it doesn't just keep on going up. One Artillery officer who transferred to the Chemical Corps remarked, "I don't know what the answer is, but it sure knocks hell out of my ballistics training."

Another oddity is that an ignited stream of napalm will travel farther when fired into a "twelve o'clock" (straight-ahead) breeze than it will when fired cross-wind. It is known that a cross-wind tends to break up the stream of gasoline, but why shouldn't a broken jet go as far as an unbroken one? At any rate, the wind direction poses a decided problem for the operator.

A third peculiarity of napalm is that the stuff will literally "shoot around corners." Apparently, after the flaming gasoline has burned up the oxygen around an inclosure, it will go inside seeking more. Photographs taken during low-level bombings in North Korea show instances where bombs missed buildings altogether, but the flames rushed on through the buildings and out the back doors and windows.

It is untrue that napalm "can kill by sucking all the oxygen out of the air." A man can live for some time in air containing less oxygen than is required to burn gasoline. Nevertheless, a person does not have to be touched by burning gasoline to be killed. Inspections of enemy soldiers killed by napalm show that they usually died instantly and apparently without pain, many of them without showing a mark or burn.

This bears out Japanese reports that a hit by an American fire-bomb on or near an air raid shelter would sometimes

leave the whole shelterful of people dead, but unmarred by anything more than a look of fright or surprise. Death, it seems, may come from a combination of heat, shock, dearth of oxygen, and possibly fumes, but not necessarily from any one of them alone.

THE development of the flame-throwing tank was the logical result of the operator's desire to get a few layers of steel between himself and the enemy bunker he was about to flush out. From the successfully improvised rigging of a portable flame thrower into a light tank came the quick development of heavier tanks with regularly built-in flame throwers. These monsters carry a heavier load of gel and can throw it accurately at ranges up to 200 yards. These saw more action in Europe than did the portable flame throwers, and were used by the Marines in driving the Japanese out of Iwo Jima and other Pacific islands. Although a few were used by soldiers in the Philippines, the Army was slow to adopt the flame-throwing tanks with the zeal the Marines did until they again proved their efficiency against enemy fortifications in Korea. Now they are being spotted in armored units in increasing numbers. They have seen plenty of action as tactical assault weapons and lately as defense against the massed "banzai" charges of the Chinese Communists.

One officer stationed in Korea recently described the enemy's feelings about mechanized flame throwers. "The enemy fears the use of fire," he said. "The psychological factor is tremendous. One tank went into a valley recently and fired one burst, and at a distance of 1,000 yards all enemy ducked down in their foxholes and stopped firing. This included those way up on the sides of hills where we could not possibly have reached them."

THE mechanized, or tank-mounted, flame throwers have caused different schools of thought.

One group holds that to be effective, the mechanized flame thrower should be a surprise weapon and should look just like any other tank. To obtain this effect, the heavy cannon is taken out of the tank turret and replaced with a flame-thrower unit. The flame-spewing nozzle is made to resemble a cannon barrel as far as possible. As a "surprise" weapon this type of flame-throwing tank can move in closer to an enemy strongpoint without disclosing its nature. Experience has shown that at times a well-concealed enemy strongpoint will, in hopes that it has not already been observed, let an ordinary tank go past it without firing a shot. Thus, a flame-throwing tank that looks no different from another tank may be able to get in close enough to put the fortification out of action with one short burst of flame. A drawback is that its fuel capacity is limited to a series of short bursts, or one sustained burst of about a minute's duration. However, much damage can be done with a single two-second burst of fire.

The other group believes a flame-throwing tank should be equipped with extra fuel tanks, towed behind in a trailer. Naturally, the extra fuel gives the tankmen a longer period in which they can use their flame. But the surprise element is missing with this tank, its tank-trailer silhouette marks it for what it is—and it becomes a prime enemy target. The added gasoline also increases the hazard to the crew of the vehicle. This type of mechanized flame thrower, called the "crocodile," has been used in Korea by the British.

Some also think that the flame thrower should be an auxiliary weapon on a tank. In this case, a modified version of the regular portable flame thrower —with the same capabilities and limitations—replaces one of the bow machine guns.

Perhaps, after using various types in Korea and analyzing the results, we will have better proof which type of tank-mounted flame thrower is the best.

THE hanging of homemade napalm bombs on fighter planes, the day after the 38th Parallel was violated, for quick delivery to the enemy in Korea, is simply an extension of its use in the flame thrower. In the fast-moving fluid action in mountainous terrain, a plane is frequently the only fast means of getting at enemy troops entrenched on the hilltops or on reverse slopes. It was soon found that a few hundred gallons of napalm would clean the Reds out of the best of prepared positions.

Within a short time it also developed that napalm made an ideal antitank weapon. Enemy tanks can withstand almost anything but a direct hit from bazookas, artillery shells, or airborne rockets. With napalm, the planes don't have to make a direct hit. A belly-tank

This is a British Mark VII Crocodile tank, spurting flame in a demonstration in Germany in the winter of 1944. The trailer carries fuel for the flame thrower.



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load of napalm will splatter a hell of roaring flames over an area as big as a football field, and any tank caught in it is likely to have its crew killed, its gasoline burned and its ammunition exploded.

Napalm is also effective against enemy troops entrenched in drainage ditches, small irrigation canals and behind the ridged edges of rice paddies. In this case, low-altitude drops tend to channelize the fire down the ditch or bank, driving into the open all enemy personnel for 100 yards or so.

An indication of the extent to which napalm is being used in Korea was shown in an Air Force report that more than seven million gallons of the gel had been dropped during the first year of the Korean conflict. This is in addition to the gallonage delivered by the Navy and Marine airmen and the pilots of other United Nations, and that used by the different ground forces. A subsequent report says that the average consumption on clear days was about 50,000 gallons by the Air Force, 11,000 by the Navy and 5,000 by the Marines.

These figures are rather surprising when it is considered that virtually all of the napalm used in Korea has been dropped by short-range bombers and fighter planes on tactical targets. Its use in the long-range bombing of North Korea's industries and supply communications has been negligible. The cities of North Korea are highly inflammable and would make ideal incendiary targets. Docks, supply bases, railroad yards, and bridges, however, are legitimate targets and these have been effectively clobbered by B-29s flying up from bases in Japan and Okinawa. The Superfortresses, however, carried high explosives —not napalm. About the only use of incendiaries in strategic bombing in Korea has been against oil storage depots, and in those raids heavy thermite and magnesium incendiaries were used.

IF napalm hasn't been used for strategic bombing in Korea, the Japanese can certainly vouch for its effectiveness in that regard in World War II. The Strategic Bombing Survey *Summary Report* of 1946 estimated that a total of 175 square miles, an area well over twice the size of the District of Columbia, was totally destroyed. This amounts to an average of 45 per cent of the 65 cities attacked. Although a few high explosives and some non-napalm incendiaries were used, the vast bulk of the loads carried were napalm.

The results in Japan were impressive enough to cause us to stockpile sizable quantities of napalm after the war, and also to make plans for getting more of it quickly if it should be needed. Those stocks were put to good use when the Reds jumped into South Korea.

During a lull in the fighting, a newspaperman asked an American corporal if he had used any of the new wonder weapons rumored to be ready for action in Korea.

"Wonder weapon?" he answered. "Sure, we've got napalm, but it's not new."

A napalm hit on an enemy factory at Changdo-ri, North Korea.





The Army's newest and biggest artillery piece—the 280mm gun—is test-fired at the Aberdeen Proving Ground by a civilian technician.

NEW 280MM GUN CAN FIRE ATOMIC PROJECTILE

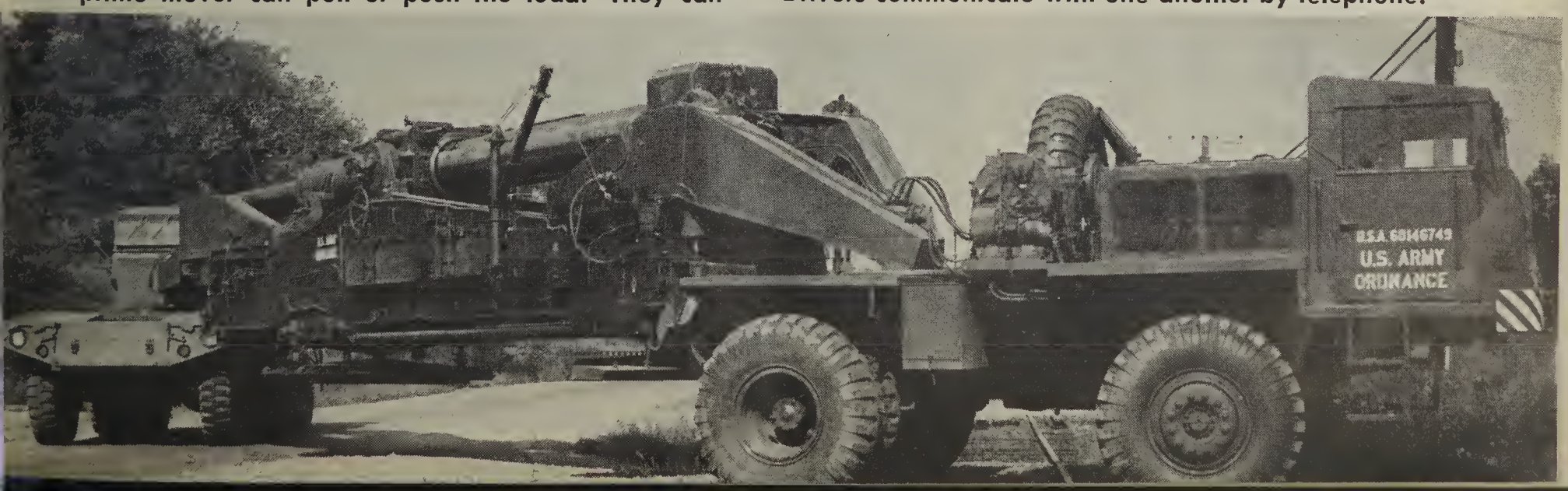
At Aberdeen Proving Ground, Md., the Ordnance Corps gave photographers the first public look at the Army's newest and biggest gun—a 280mm giant that is capable of firing atomic projectiles as well as conventional shells. The gun weighs about 85 tons. Range of the gun varies with the type of shell used, but maximum range is probably about 25 miles. A 280mm battery will consist of two of these guns plus eight 5-ton trucks.

The 280 can be traversed 360 degrees and elevated to 55 degrees—as it is here. If the gun were in position to fire, the transporter unit would be detached.



Rear view of the 280. The hydraulic power rammer is pushing a shell into the breech. After the powder charge is rammed home the loading track is moved out of the way. The soldier at the left is peering through the sight of the big gun.

The 280 is transported by two prime movers between which it is suspended. Top speed on highways is reported to be 35 miles an hour. Either prime mover can pull or push the load. They can turn and drive parallel to one another, carrying the gun between them. The driver of the leading tractor can control the throttle and brakes of both units. Drivers communicate with one another by telephone.



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WHY NOT SP?

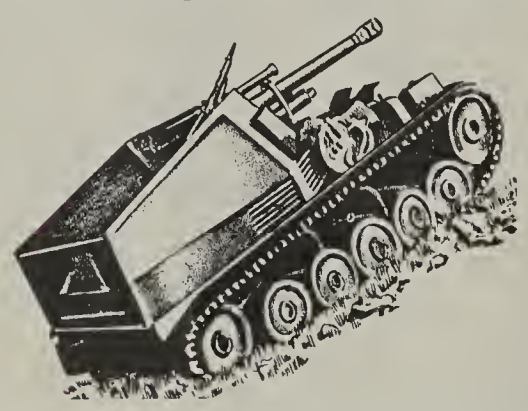
Lieutenant Colonel Bidwell Moore

NEITHER now nor in the past has there been any light (105mm class) self-propelled artillery as such in our Army. This apparently provoking contention is clearer when viewed in the light of what follows.

We must have definitions if we are to understand one another. So let's define the four general types of artillery besides the conventional towed variety. They are:

Tank destroyer artillery is moderately armored, open-topped, fast, and highly maneuverable; has a high-velocity gun with 360 degrees traverse. Its mission is to kill tanks, but it may also do yeoman service as an assault gun. It is built on tank chassis.

Assault artillery has heavy frontal armor, moderately armored sides, lightly armored rear and top; its gun or gun howitzer is largish and limited. Its mission is to provide close support (direct fire) to accompanying infantry.



Working from a reproduction of a photograph, artist shows right side of German Wasp, mounting a 105mm howitzer on a *Panzer KPFW II* chassis.

Armored artillery is moderately armored, open-topped; has a light or medium howitzer with limited traverse. This is artillery designed to support armor and armored infantry.

Self-propelled artillery is artillery whose mode of transportation is by self-propelled mount instead of prime mover. It should have little (or no) armor, carry a light or medium howitzer with wide (to 360 degrees) traverse. Its mission would be to provide close and direct support to the ground-gaining elements of the infantry and airborne division. It would not use a tank chassis (too heavy and expensive, initially and operationally) but a simple full-tracked mount functionally designed for the job. U. S. has none.

These four types of artillery have two features in common: they are full-tracked and they are self-propelled. The last type, however, has the same mission as conventional artillery and differs from it only in form of transportation. It is to this type that the term "self-propelled artillery" applies. To the others this feature of self-propulsion is secondary and *incidental* to their principal feature as described by their names.

THE characteristics of self-propelled artillery that are germane to this discussion are mobility, agility, aggressiveness and purpose.

Basic characteristics of the contemplated self-propelled artillery are that it be light (12 to 15 tons fully loaded); that it be simple; that it have the fire capabilities of towed artillery; that it tow a utility trailer (to be used principally for ammunition).

Major disadvantages are: higher initial cost, *possibly* higher fuel consumption, higher maintenance costs, less range. Track, however, is more durable than pneumatic tires and less vulnerable.

Artillery has long needed self-propelled guns designed for its mission (not tank hulls with artillery pieces fitted on —for these are expensive and unsuitable and they lack the fire capabilities of towed guns; they are armored artillery).

What are the advantages of SP artillery? Its two principal features are, as we have noted, mobility and agility, and of these two, mobility is the more important. Mobility is movement from position area to position area. Agility is movement in the vicinity of the position area. The essence of both is movement.

WHEN considering a third world war one must reckon with conflict in Europe and Asia—both spacious areas where mobility will be a prime factor in outmaneuvering a possibly more numerous enemy. But, except for Western Europe, the road nets in these areas are negligible. Proportionally France has the best road net in the world, Germany has the world's most elaborate superhighway system but her secondary net is second-rate. These two countries offer an excellent base for beginning operations across the "North German Plain" into western Russia. This ends the "bright" side of the situation. Unfortunately, Soviet Russia herself, and border areas including China, have from very poor to almost no road nets. The essence of this is that our forces must be able to operate off the roads. With changing seasons the problem becomes more acute.

It is not desired to belabor the need for road nets. But it must be remembered that tracked (not wheeled) vehicles are the key to successful warfare in Russia and Poland. A logical extension of this statement would include China. It is inconceivable that a third world war will not include major combat in Russia and China.

Another facet of the proposition of mobility is support. Artillery must be able to move so that it can furnish close and continuous fire support to infantry and armor. So aside from general movement one must consider specific movement. The infantry moves to hit the enemy where he is not protected, often across difficult terrain. Artillery must be able to accompany it. The key to success is the unfailing support implicit in large masses of self-propelled artillery —artillery that is not roadbound or subject to immobilization by adverse weather and consequently difficult ground.

MOBILITY of SP artillery is the key to rapid concentration of force. For with relatively short artillery ranges and action spread out or possible over great distances, artillery itself must mass so that it can mass its fires to a greater degree. Now as rapid concentration of force is dependent on mobility, so is a successful breakthrough and encirclement of the enemy dependent on the ability to rapidly mass.



Working from a wartime reproduction of a photograph, artist shows right side of Soviet SU-100, mounting a 100mm gun on T-34 tank chassis.

It is clear that a mobile, non-roadbound, spread-out force will fare better in the face of an atomic threat than one which is 90 per cent roadbound. Dispersion is the essence of atomic defense. Mobility is necessary to effect dispersion.

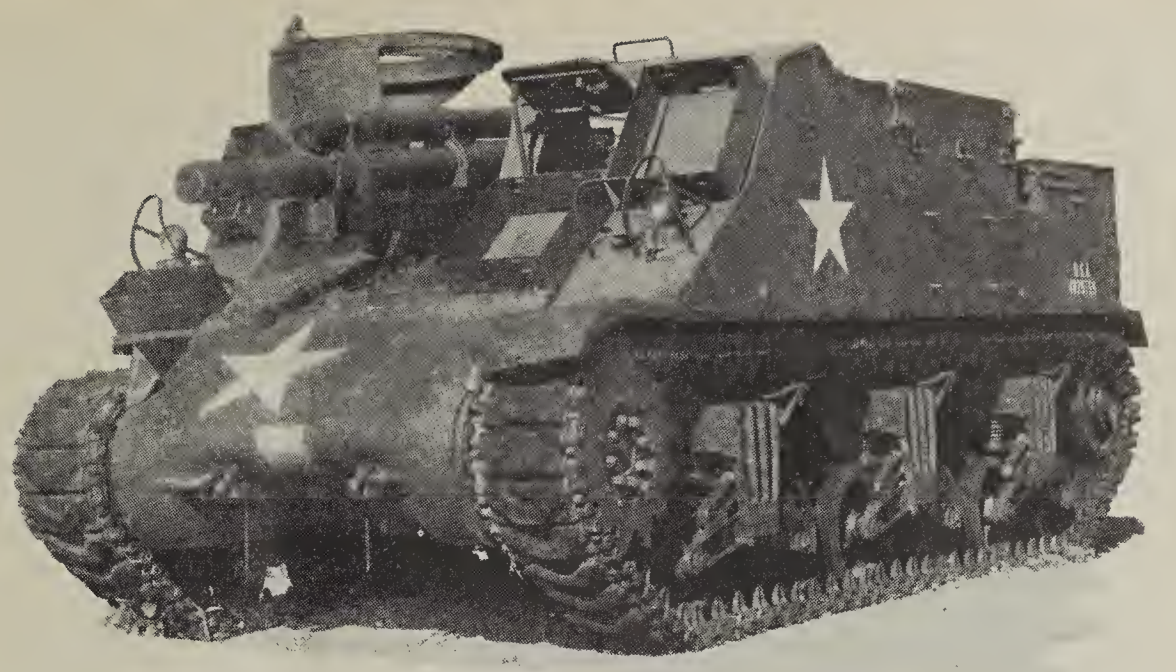
LIEUTENANT COLONEL BIDWELL MOORE. Artillery, is a member of the staff and faculty of The Artillery School, Fort Sill.

Wheeled transportation simply does not have the capability for movement of tracked vehicles. All of these conditions show the need for tracked artillery.

THE ability to rapidly shift position in the face of counterbattery fire; to meet with fire a flank (or out of sector) attack; to nimbly cover a withdrawal, or move rapidly to hull down positions to cope with enemy tanks—all these are maneuvers whose success depends upon agility. Similarly, agility is particularly valuable in the defense of the battery position or area, and when ambushed on the march by groups of enemy infantry. Korea has shown the spectacular difference between towed and armored (SP) artillery.

MOBILITY and agility are prerequisites of success. Conventional, run of the mine weapons and tactics against such an enemy as we may expect would mean unwarranted risk. The meat and potatoes aspect of such a war must be decisive. Air superiority, atomic bombs, fancy rockets, high powered naval forces cannot relieve us of the necessity of coming to grips with the enemy land forces. That *will* be necessary and the enemy's forces will be large. Audacious and determined men with inferior weapons are capable of tremendous action. How important then that our courage and tenacity be high! How important that our weapons be far better!

The effect of SP artillery on the character of the troops (those serving in it, and those associated with it) is predictably inspiring. Certainly it engenders enthusiasm, a sense of cooperative confidence, and, most important, would enhance the aggressive spirit of the troops. The cavalry of yesterday, the armor and air forces of today have this *esprit*, this willingness for action.



U.S. M37, mounting a 105-mm howitzer on M24 light tank chassis.

The wider this spirit is spread, the more effective our efforts will be to counter aggression. A nice balance must be sought between the sitting-duck, immobile type of towed artillery and assault or storm artillery. Self-propelled artillery strikes this balance.

LET us now consider cost and design. Obviously, it should be possible to design and build cheaper SP artillery than the costly compromise equipment used in the armored division: the superimposition of a howitzer tube on a turretless tank.

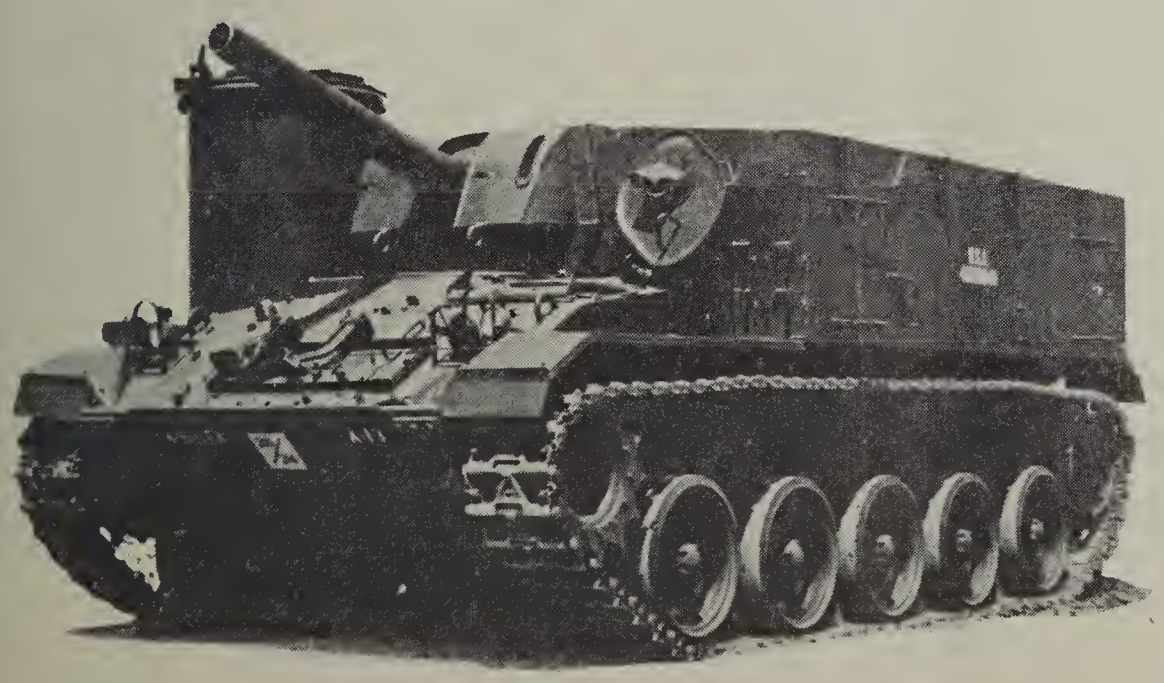
When we examine the record we find that the armored artillery of U. S. design (in the 105mm class) weighs 22 to 26 tons while the German 10.5cm Wasp weighed 12 tons. Now here are revealing facts. In general the U. S. and German SPs were the same. However, the German weapon was simpler design, had 1300 yards greater range, same crew, but was 50 per cent lighter. This German model was also an improvisation; a howitzer on a modified tank chassis. But consider what an efficient, cheap (in skilled labor and materials) model could have been turned out had design and effort been directed toward the end product from the very beginning.

A very light armored model (similar to the German one described above) is equivalent to what I propose for SP artillery in general. It should have: wide tracks giving low ground pressure (8 lb/sq in). Christie suspension, low silhouette (8 foot or less), high Soviet T-34—1.3 feet), capability for high-angle fire (74 degrees) to be attained with a pedestal mount, limited traverse (60-90 degrees), short recoil (aided by a muzzle brake), primary armament of a 105mm howitzer with a range of 17,000 yards, secondary armament of a light machine gun, speed of 25 mph, and a trailer which will carry 100 rounds (50 to 70 rounds to be in the vehicle). Although this is not armored artillery, it must provide crew protection comparable to the shield and gun pit of the towed version. This means light armor, two sheets of ⅛-inch plate with an air space or plastic (fiber glass) between would provide effective and light shielding for the crew compartment including overhead cover.

Motive power should probably be a Diesel engine providing a horsepower per ton ratio of 20 to 1. The German Wasp cited above had a ratio of 11.4 to 1. It had a simple front-sprocket drive, with synchromesh transmission. This is the kind of thing we want—purposeful design, low weight, simplicity (it's only going to replace a truck and is not supposed to be a tank or armored artillery and so does not require torsion bar suspension, cross drive transmission or other "improvements").

Responsible officers of the technical services have stated that it should be possible to build an efficient SP artillery vehicle including howitzer for the cost of the towed equipment.

World War II U.S. M7, mounting a 105mm howitzer on M3 medium tank chassis.



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ORDERS TO EUCOM?

Lieutenant Boyd T. Bashore

A friend in Germany to whom we sent this article for an opinion, air-mailed his answer: "Use it. I wish I had read it before I got over here."

OFFICERS and men ordered to European Command usually find it difficult to obtain timely information on which they can base their personal plans. Unfortunately that situation will probably continue to exist. In the United States most of the available information on EUCOM is inaccurate or outdated. In this article I will try to enlighten those who have orders assigning them to Seventh Army units in Western Germany, but what I say may not necessarily apply to other commands in Europe, such as Austria, Italy, or Trieste.

Bring an automobile with you to Europe, if at all possible. An automobile is a necessity, especially for married officers, many of whom find themseves billeted considerable distances from the posts to which they are assigned. Some family quarters are a hundred miles or more from the military station, and going home is a week-end commuting job. If you don't have your own car you may find yourself at a distinct disadvantage. Also you'll find your personal car helpful in pursuing official business, since official and especially commercial transportation is haphazard or nonexistent. In addition, opportunities for travel through Europe during off-duty time are much better if you have your own car.

The most convenient method of shipping your car is to drive it to the Port of Embarkation. Most of the regulations that must be complied with before shipping your car can be handled at the port when you arrive, but be sure to have all title papers and related documents with you. They must be presented when the vehicle is turned over for shipment. If the car is owned wholly or in part by any finance company, bank, mortgagor, or lienor then you must also obtain a statement in writing from the co-owner specifically authorizing the shipment to a destination outside the continental limits of the United States.

For more specific details on shipping your car, talk to your local Transportation Office or write The Troop Movement and Initial Equipment Division, Headquarters, New York Port of Embarkation, Brooklyn, New York.

In Europe, gasoline for privately owned vehicles is obtained with gas coupons purchased from the European Exchange Service at 14 to 16 cents per gallon. Normally a hundred gallons are allotted each month, although more coupons may be obtained if needed; the rationing is more to eliminate black market activities than to limit travel. Gasoline may also be purchased from German sources at considerably higher prices.

The Exchange has agreements with garages to repair cars, although, in many cases, quicker and more convenient service can be obtained from local German garages. It is difficult to obtain parts for American cars, especially the more exotic makes. An excellent solution is to buy a number of critical spare parts before you leave the States. A suggested purchasing list of critical spare parts can be obtained from the port.

New automobiles can be bought by those who have an Exchange ration card. The delay on a special order basis is from four to seven months. Many officers purchase European automobiles directly from the civilian market. This solves their servicing and parts problems. It is possible to sell your old car on the civilian market. Prices are about the same as in the States, but there are very few Germans who can afford the relatively large gas consumption of American automobiles.

Winter uniforms are worn on duty throughout the year in the Seventh Army, but during the summer the tropical worsted uniform is optional during the evenings. The uniform must be worn at all times in Germany, although in other countries, when you're on a trip, civilian clothes are usually optional. So bring along both your civies and summer uniforms.

THE housing situation is just as you suspect—bad to spotty. However, there are signs of improvement.

Bachelors are usually housed in hotels or bachelor officers' quarters near the barracks at which their unit is located.

Unfortunately for the married officer, the shortage of German housing, coupled with the recent influx of many new units, makes the situation in the European Command critical and does not allow concurrent travel for dependents. You will find that the time before your dependents can join you will vary from a few months to over a year, depending almost entirely on the area to which you are assigned. At those posts near war-devastated cities, especially outside of the American Zone, the housing is most critical. If you have the good fortune to know to what unit you will be assigned, then you can write your billeting officer for his estimate. To ease the situation in some of the more critical areas, quarters have been assigned in other cities, if the officer desired them.

MANY officers ask, "May I bring my wife over as a tourist, at my own expense?" Although the official policy towards such action is somewhat confused, the Bonn Government, which controls the tourist visas, and the High Commissioner for Germany, welcome the tourist dollar and recently refused to support a proposed three-month limitation on the stay of tourist dependents. Tourists will tell you, that *if* you find adequate housing, you'll find that you can live cheaper than you could in America, providing you overlook the expense of the commercial trip to Germany, which for a coach flight from

LIEUTENANT BOYD T. BASHORE, Infantry, got his orders to Europe a few months ago and this article was one of the results. A paratrooper, he served during the Second World War as an enlisted man and officer, and entered the Military Academy in 1946, graduating in 1950.

New York to Frankfurt, runs to about $313.

But you should know that until you are certified for government quarters in the normal manner and after the usual wait, you will not have commissary privileges or dependent schooling, and only emergency medical aid will be furnished. Your dependents usually will be eligible for Post Exchange privileges, however, and most PXs have small canned-food counters. However, you must be prepared to support yourself off of the German economy. You are not eligible to be refunded the cost of transporting your dependents commercially, either, when your normal certificate for quarters is approved. You may ship household goods once such an approval is obtained, although only a few household goods are needed.

EUCOM Headquarters has estimated that by Christmas, 1952, 91 per cent of all married personnel under its command will have adequate housing, so it is quite possible that the housing situation will soon ease off.

When available, government housing is adequate. Usually sufficient household furnishings are issued so there is no reason to ship large amounts of your own furniture to EUCOM. Naturally, the details of dependent housing vary according to rank and area, but the average house or apartment is furnished with a refrigerator and stove, and suites of excellent furniture for a living room, dining room, and the necessary number of bedrooms. The bedroom suite usually consists of single beds of American style. An eight-place setting is furnished in quality German silverware, glassware, and china.

Furnished cooking utensils are limited, seldom consisting of more than two or three pans and a broiler. So bring your knives, pans, broilers, and coffee pots with you, since quarters are not adequately stocked with them. Many such items can be purchased at reasonable prices on the German market.

No linens are furnished with the apartments or houses, and the family should bring enough bath and dish towels, blankets and bed linens for their own needs. Pillows should also be included in the list, since they are no longer furnished. If you like a double bed, bring that too; they are not readily available here.

Most electrical outlets in Germany are 220 volts, 50 cycles, compared to the U. S. standard of 110 volts, 60 cycles. Most American electrical equipment will operate satisfactorily on 220 volts through a voltage transformer which can be purchased here, but difficulty will be experienced with electric clocks and record players because of the difference in cycles. If a quick check with an electrical expert guarantees that your particular washing machine, deep freezer, sewing machine, and radio will work with a transformer and a slightly slower cycle rate, bring them along.

BANKING facilities in Germany are handled by the American Express Company and the Chase National Bank. Main or branch offices are usually located in places where soldiers are stationed in sufficient numbers to justify them. These banks will cash checks on banks in the United States, and will also make available normal banking accounts and services for personnel stations in Germany.

For your trip overseas, limit the amount of greenbacks you carry with you. Instead, use traveler's checks, since taking greenbacks physically into Germany is illegal and you'll just have to convert your dollars sooner or later. In Germany all currency transactions are in Military Payment Certificates, called Script, Deutches Marks, or dollar negotiable instruments, such as traveler's checks or money orders. There are many restrictions placed on currency transactions the details of which are too complicated to enumerate here.

No matter what your branch of service, if you're headed for EUCOM you should prepare yourself mentally and physically for service in an Army that is as tactical as the situation permits. Such personal affairs as wills, insurance, allotments, and powers of attorney, all should be taken care of before leaving the States.

If you like special equipment for the field, bring it with you to EUCOM. You'll probably use it many times on the frequent maneuvers and alerts in which the units here participate . . . and if the showdown comes, you're liable to use it for the real thing.

That's EUCOM as it looks from here.

On board a Navy transport en route to Europe to join their father, this pair of Army brats and their mother teeter with the ship.



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Killer Offensive

Captain Neal J. Ahern



LOVE COMPANY's mission was to secure five objectives, kill as many of the enemy as possible and keep its own casualties low. The company commander was new and so were half the men—but the Company performed its mission.

DURING General Ridgway's "Killer" offensive in the late winter of 1951, Blue Battalion, 35th Infantry, was selected to make the drive up the 25th Division's main supply route from Osanni to Yongdong-po. The Turkish Brigade would be on the right and Red Battalion on the left. White Battalion would secure the line of departure, north of Osan. The battalion commander, Major Jim Lee, gave us the time schedule, order of march, and remarked that while all three rifle companies would be on the line, the 24th and the 27th Regiments would follow us up the MSR.

I called the officers and key enlisted men of Company L together and issued a company order. We had very scanty enemy information.

> King Company is on our left with responsibility for the MSR and for the high ground to the right and left of it. The Turkish Brigade is on our right, and we will make contact with it when we take Objective 5. The 81mm mortar platoon, a platoon of heavy mortars, and Battery C, 64th Field Artillery will be in general support of the battalion. A section of machine guns from Mike Company are attached to us.
>
> Our company mission is to secure the five objectives (*Sketch 1*), while inflicting the heaviest possible casualties on the enemy and destruction of enemy material. There is no time limit, and we are not to by-pass any pockets of resistance.
>
> The initial formation and platoon missions will be as follows:
>
> 1st Platoon on the right, with one 57mm rifle squad attached, will move on the first company objective;
>
> 2d Platoon on the left will follow the low ground;
>
> the attached machine gun section will follow the 2d Platoon by bounds with primary support to the 1st Platoon, and be prepared to fire on targets of opportunity;
>
> the Weapons Platoon, less one 57mm rifle squad, will move by bounds on the low ground, with primary support on the company objectives, and be prepared to fire on targets of opportunity;
>
> 3d Platoon will follow the 2d by 300 yards for support as required by the situation.
>
> I will take the Company OP with the 1st Platoon, and the Company CP with the vehicles will follow King Company vehicles on the MSR.
>
> The Company ammunition supply point will be with the CP.
>
> Communications within the company will be by SCR 536 and runners; with battalion by SCR 300 and runners; to the artillery and tactical air support through the artillery observer's SCR 619.
>
> Any questions?

There were three questions they didn't ask but I knew they had them.

"The company commander is a new officer in the battalion. The company he had last summer was all right in the defense, but will he be as good as our old CO was in the attack?"

"Half of the men in the company are untried replacements who joined us when we moved south, all but six of the men in the weapons platoon are from this group; will they be an effective part of this team?"

"The company is about fifty men understrength, short one mortar and one 57mm rifle; can we handle this assignment for a rifle company?"

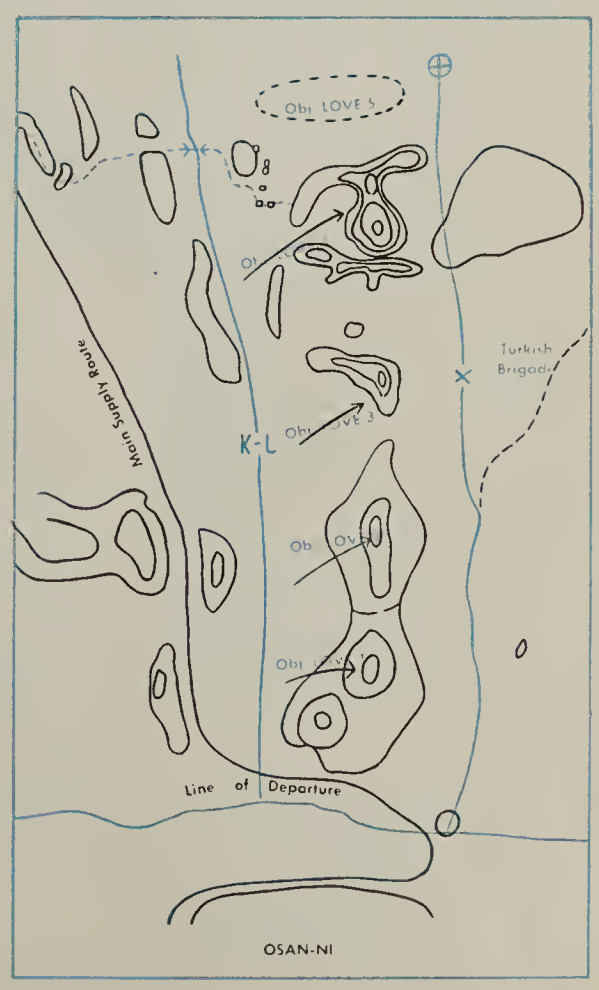
The answers would come when we met the enemy.

BY 1230 hours, everything had come off according to schedule for Blue Battalion. There had been no enemy contact, and objectives one, two and three were secured. However, the Turkish Brigade was held up about 1,200 yards across the valley, parallel to our second objective. Air liaison reported a lot of movement on Objective Love 4 (*Sketch 2*), and Blue 3 called for extreme caution. From the company OP on Love 3, a poorly camouflaged bunker was observed on a small knob that was part of Love 4. It was obvious enough to make one think it was a dummy emplacement, designed to draw fire.

During the movement from the line of departure to Love 3 some changes in formation had taken place. The 57mm rifle under company control was instructed to fire on the bunker if activity was observed. This procedure was necessary because all ammunition had to be hand-carried over 2,500 yards of rugged terrain.

The artillery observer was instructed to have his battery prepare data to place a VT concentration on the main peak of the objective, and be ready to fire or shift on call. Similar instructions went to the 81- and 60mm mortar observers; but again, they were not to fire unless movement was observed or contact made.

WHEN these preparations were completed, the 1st Platoon with the attached 57mm rifle squad was moved to position Able. It drew no fire and observed no movement. The 2d Platoon then moved to position Baker with similar results. The Company OP and sup-



Sketch 1. *The five objectives.*

CAPTAIN NEAL J. AHERN, Infantry, served in Korea with the 25th Infantry Division from July 1950 to March 1951. He enlisted in the Army in September 1942 and was commissioned in April 1943. He now commands Company M, 504th Airborne Infantry, 82d Airborne Division, at Fort Bragg, North Carolina.

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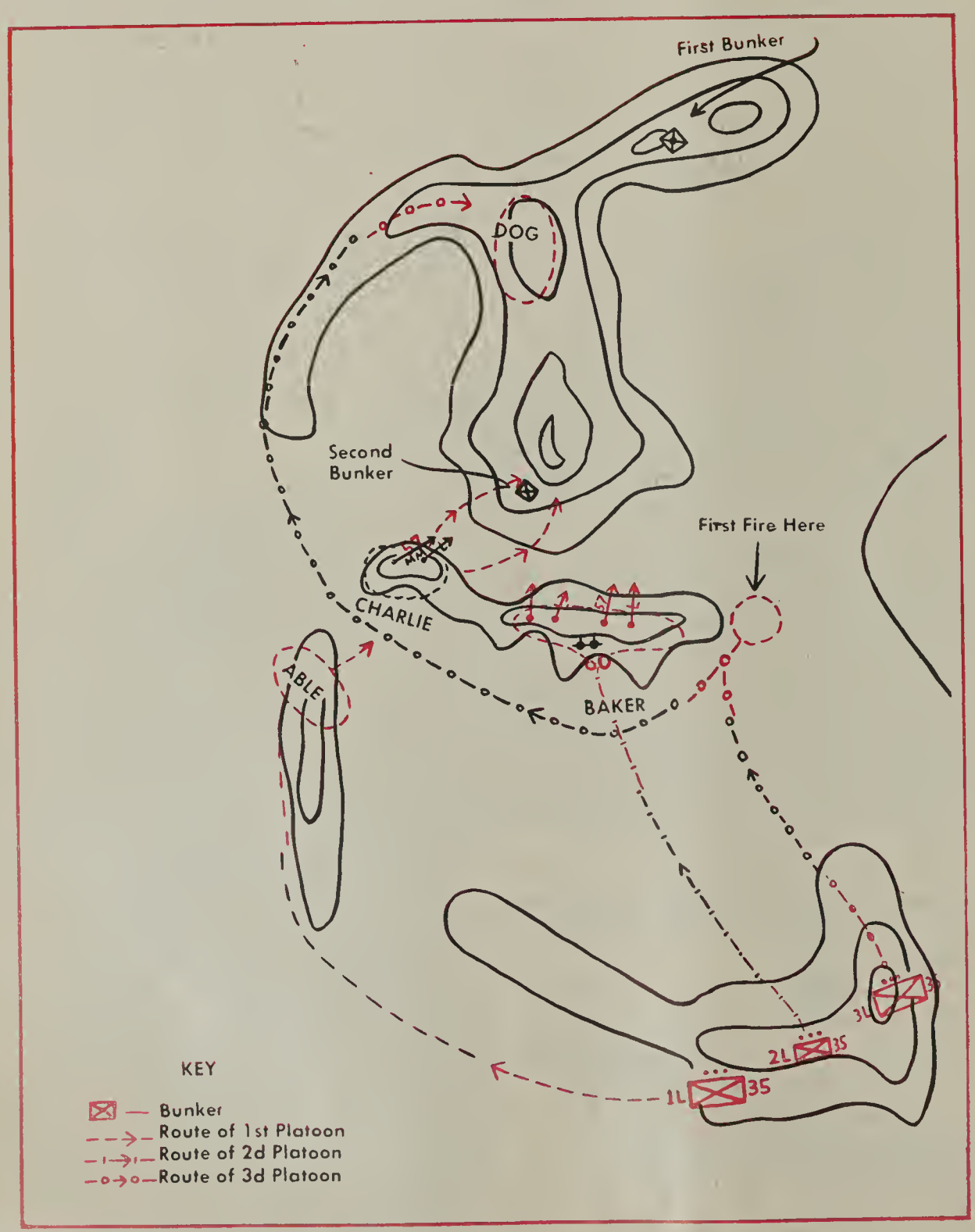
porting weapons displaced in rear of the 2d Platoon without incident. Finally, the 3d Platoon was ordered to pass around position BAKER and move up the right side of LOVE 4. The leading elements came under automatic small-arms fire just as they left the cover of BAKER, and broke for the best cover to the right. The main body of the platoon was masked by BAKER, and was ordered to hold there.

This maneuver disclosed the strong side of the Chinese position which had probably been organized to defend against an attack from the Turks' sector. The 1st Platoon was then moved to position CHARLIE without drawing flanking fire, but drew machine-gun fire from a second bunker facing them from the objective. The 57mm rifle squads dealt effectively with the bunkers.

The enemy began shifting some men in alternate positions facing the 1st Platoon, but many were caught in the open by 81 mortar and artillery fire. VT fuze artillery chased some out of holes to become targets of our machine guns, but on the whole the enemy appeared to be shifting successfully to their alternate positions.

To save time, the 1st Platoon was ordered to prepare to assault the objective when the VT fire ceased, and the 3d Platoon was ordered into position ABLE. The early lifting of artillery fire was necessary, because the company SCR 300 and the artillery FO's SCR 619 had gone out of commision; but the 81 mortar observer had direct contact to his platoon with his SCR 300.

The 1st Platoon left its machine gun, rocket launcher and 57 rifle in position, then crossed to the base of the objective, and rapidly moved into the assault position. No further effective small-arms fire was placed on them, but they met a barrage of concussion type hand grenades that stalled the assault. Meanwhile, some enemy 60mm mortar rounds fell near the company, while the 3d Platoon was moving to ABLE. They were intercepted with instructions to move around ABLE and to the enemy's left rear, to position DOG. As they were halfway up to DOG the 1st Platoon renewed its assault and the Chinese hastily withdrew to their own right rear.



Sketch 2. *Objective Love 4.*

THEY left behind sixty-four dead, two prisoners, and an assortment of Soviet rifles and automatic weapons. One of the prisoners proved to be a sergeant major who had commanded the unit. He revealed that the force had consisted of one hundred men with rifles, automatic weapons and two U.S. 60mm mortars; most of the third that escaped were wounded. This had been a flank anchor point of the Chinese defense line holding up the Turkish Brigade.

We had only one casualty and there was no more fighting that day for Company L.

The questions that had been unasked were answered. Company L was a good offense team. It had proved it all of the way to Yongdong-po.

THE greatest breakdown in this attack, aside from radio failure, was ammunition resupply. This phase of the reorganization was restricted to the redistribution on the objective. The level of ammunition at this time was below the basic requirements to stop a counterattack.

In the company order, I had designated the Company ASP as being on carrier along the battalion MSR in the rear of the battalion command vehicles. During the attack, four carrier parties were sent to the ASP, but none found it or returned with ammunition. In subsequent attacks, these carriers were moved by bounds to designated terrain features as certain company objectives or phase lines were reached. This made the ASP much simpler to find and kept it as close to the company as the terrain permitted.

Companies will frequently find, on terrain which restricts the use of vehicles, that it is necessary to request additional ammunition bearers from the P&A Platoon. Without this help, it becomes necessary to weaken the attacking unit to effect the resupply.

Breakdown in resupply is common in many units when first committed to an attack, because its importance is not properly stressed in training problems. To learn to understand resupply, empty ammunition containers to include bandoleers should be used on all training problems.

★ CEREBRATIONS ★

Our literate cocktail-hour tacticians stand to receive as much as $10.00 for their contributions to this department. However, the price for those "dashed off" with scant consideration for the rules of composition and rhetoric will be much less. Hold them to four or five hundred words and type them double-spaced.

Question For Commanders

Few commanders openly question the usefulness of combat intelligence. But so few company, battalion, and regimental commanders give this vital discipline a real impetus in training that their real opinion of it is revealed. Combat intelligence, I submit, has more lip-servants than overseers; more schoolroom salaams than drill-schedule disciples.

There are, of course, intelligence-conscious commanders whose insistence on a realistically efficient intelligence program, in combat or out, refutes these assumptions. But, unhappily, there are far too few of them. I offer as a demonstrably provable fact that combat intelligence, when laid on realistically in battalions and regiments, has both helped to do the fighting job and saved lives in the process. Why then are there *still* officers who let this staff tool slip through their fingers by default? Let's take a brief look at some of the reasons for this command failure. These are as varied and illogical as some of the individuals who accept them:

The "Priesthood" of Intelligence Officers. Read the following "appreciation"[1] and see if you can make any sense out of it. It's satire, but to be effective satire has to have *some* basis in fact.

"While it cannot be said that Rundstedt's offensive achieved its object of changing the allied time table, it has undoubtedly made some alterations necessary in that time table. It has postponed rather than delayed an offensive, and in that sense above, may be said to have lengthened, but not prolonged the war. The allies were not surprised, because they knew the possibility of a surprise attack. What surprised them was that the Germans thought it worthwhile to make a surprise attack, in spite of the fact that such an attack, though deemed impossible, was not deemed probable, in view of the fact that we knew they would try to surprise us."

We all recognize this as gobbledegook of the highest order. The lesson is clear. Commanders should insist that their S2, over their (the commanders') name, disseminate clear, concise, and meaningful intelligence. There should never be an "intelligence priesthood" on any level. Intelligence is a vital command tool; not a mystic cult.

"Don't Tar Me with *that* brush!" Before World War II, many officers thought an intelligence assignment was only about one short uneasy step above reclassification. The mission of combat intelligence was in the nebulous future. Other staff sections could aid the commander in his day-to-day planning *now*. As a result, battalion and regimental intelligence officers were often chosen more for their professional ineptitude than job aptitude.

"I've been in this man's army more years than that kid is old!" Let's face it. A staff relationship between commander and subordinate is more than a rigid sharing of the work load. It is also a warm human and social relationship. In the vast majority of cases the commander is older than his staff officers, often by fifteen or twenty-five years. Unfortunately many commanders cannot help but feel towards their staff family as they do towards their own family. In this social situation the S2 often finds himself the junior on the staff, in years as well as experience. A commander who welcomes help and constructive criticism on problems of personnel, operations, and supply, cannot bring himself to accept his intelligence officer as the same kind of specialist. He prefers to "sense" the capabilities of the enemy, rather than have his youthful S2 present them to him in systematic fashion. Perhaps, in this case, the commander's own professional pride works against using his young intelligence officer fully. Whatever the reason may be, many command failures are often summed up in a quasi-belligerent "I've been in this man's army more years than that kid is old."

"I Never Take Counsel of My Fears." To a certain extent, an intelligence officer can be likened to a friendly but persistent life insurance salesman. An efficient S2 takes every conceivable step to avoid his unit's being surprised. He may advise his commander to clear out that high ground before barreling down the road; probe with patrols before lunging forward. An attack-minded commander may see in this well-intentioned advice only the unfortunate fact that it will slow his forward impetus and allow the enemy time to regroup. "Better ten casualties today than one hundred tomorrow" is accepted attack doctrine. It would be a foolish and short-sighted G2 who ever forgot this and urged that an attack be braked to an unnecessary halt. Likewise, every commander should realize that today's cakewalk could be tomorrow's blood bath. The solution is command flexibility and mutual trust. A heads-up S2 should never be unduly impressed by our weakness and enemy strength. Senseless fear-mongering on his part is like the parable of the boy who cried "wolf!" Some day a wolf may be across the next hill from us and a smart commander will want to know that particular wolf's predatory capabilities. To the commander who proudly states that he never takes cousel of his fears, one might reply, "That's swell, sir! *But please make your intelligence officer take counsel of his.*"

"Never saw any of this Intelligence poop used in combat!" Many things are done in combat; some well, some not. Simply because a certain action is taken in combat does not, in itself, sanctify it. The only worthwhile test is: did it work? and is it beyond improvement? The use of intelligence forms and terms will vary from battalion to battalion; from regiment to regiment. What should not vary from unit to unit is the high caliber of combat intelligence being produced, the effectiveness of a unit's counterintelligence measures, and the ability to appraise the effect of weather and terrain on that unit's mission. Many units use forms to make sure that they "touch all these bases." Some do not. The thing to remember is that intelligence work-forms teach principles and fix habits. Most units use them in combat to some degree. I would personally not enjoy replacing a battalion or a regimental S2 who kept it all in his head. The transfusion of information might take an uncommonly long time.

If my plea for increased intelligence-awareness has appeared presumptuous and unenlightening, let me say that it was not written to define or explain combat intelligence (FM 30-5 does that job), but rather as a frank appeal to battalion and regimental commanders

[1]From "Dissemination of Combat Intelligence," Intelligence Division, Army General School, Fort Riley, 18 May 1948.

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to search both their training schedules and their consciences for an answer to my question: are you *demanding* and *receiving* effective and meaningful combat intelligence in your unit? If your answer is "no," you may be commanding or you may be America's next soldier "known but to God."

CAPT. FRANK P. JONES
Infantry

Facts But No Foundation

We must train our riflemen today so that they will have a complete understanding of the weapons they use. We can save time, money, and lives if we teach the fundamentals of small arms thoroughly. If our riflemen understand these fundamentals they will have a better knowledge of our own weapons, those of all other armies, and any new weapons.

In learning we begin with basic elements and progress to general rules or principles. We want the rifleman to know all about small arms when he has completed his basic training. Considering only the mechanical aspects, he must know how to disassemble, assemble and maintain, and to a certain extent know the functioning of the M1 rifle, automatic rifle, carbine, pistol, light machine gun, and heavy machine gun.

Under present training programs the trainee completes his work with each weapon individually, and doesn't learn well enough the principles that apply to *all* the weapons. In most cases several different instructors are used. When parts of the instruction are thus treated as entities no understanding of small arms as a group is approached. Thus the opportunity to draw out more associations of facts and acquire more understanding is lost. The fact that the basic structure and firing cycle are almost identical in all these small arms is a good example of lost associations. Of course, in a great many training centers the training personnel is transient and instructor coordination almost impossible. But changes can be made in schedules so that individual facts are related to principles both before and throughout the training period.

One or two additional hours of instruction is all that is needed. This time will be used to explain the fundamentals of mechanical training, given before any weapons work. All explanations must be kept as simple as possible and illustrated with everyday occurrences. Throughout succeeding training, reference should constantly be made to these fundamentals.

If the new man in the Army learns how important his small arms training really is, the job of training becomes a pleasure. So the instructor must do his best. It is a challenge.

The recruit must be taught just how the principles will help him learn all weapons (M1 rifle, automatic rifle, carbine, pistol, light machine gun and heavy machine gun). He must learn the principles of mechanical construction, the basic firing cycle, and the different types of operation. Once the basic trainee knows these things he will have a deeper and more lasting understanding of small arms than the trainee of the past.

LT. GALE C. LIVENGOOD
Infantry

SMG or Carbine?

Why do we have both a submachine gun *and* a fully automatic carbine? Why not just one? It seems to me that here is a duplication of weapons which have similar characteristics and are used for practically the same purposes. By having both, we create problems which could be eliminated or at least reduced with several beneficial results.

Let's compare the two weapons:

	SMG Cal. .45 M3	*Carbine Cal. .30 M2*
Weight unloaded	8 lbs	5 lbs
Weight loaded	10 lbs	6 lbs
Cyclic rate	450 per min	750 per min
Max effective range	200 yds	300 yds
Type sights	Peep (fixed)	Peep (adjustable)
Length	29 in (with stock)	35 in
Magazine capacity	30 rds	15-30 rds

After considering the features of both weapons, which one do you want? Speaking for myself, I'll grab the carbine. It is lighter, easier to carry, and fires faster. It may be fired semi or full automatic; it is more accurate at longer ranges, and it delivers blistering bursts of fire at short range. It does everything the submachine gun can do, and does it better.

From the viewpoints of training and supply, there are definite advantages to be gained by adopting the carbine as a replacement for the submachine gun. In the infantry regiment, there are 34 men armed with the submachine gun. This means a separate training program involving mechanical training, care and cleaning, dry and live known-distance firing, field firing, ammunition supply —plus the *time* of two company commanders, the S3, S4, and other personnel. If these 34 men were armed with carbines, they would be included in the planning for carbine instruction with no extra effort. I have illustrated this point by using the infantry regiment as an example, but it applies equally as well to any other unit which has both the carbine and the submachine gun as part of its T/O&E. It might also be appropriate to mention that ordnance troops responsible for third-echelon maintenance would have one less weapon to learn and a reduced load of spare parts to carry.

Field Manual 101-10 states that the infantry division carries nearly 10 tons of caliber .45 ammunition in its basic load. I am not a logistician, but I can visualize the amount of time and effort required to record, store, account for, and handle all that ammunition. When you consider the load on Army Depots, Com Z Depots, supply lines from the ZI, and even the production lines in the ZI, I think it is easy to appreciate the effect of reducing the amount of even one type of ammunition used. We will still need some for our caliber .45 pistols, but the amount would be infinitesimal by comparison.

There are many advantages to be gained by discarding the submachine gun and replacing it with the carbine, and nothing will be lost. Some may consider the weight of metal thrown by the submachine gun to be a desirable characteristic. Personally, I don't see why it is necessary to chop an enemy in two when a few neat perforations in his carcass will produce the desired result.

MAJ. JAMES J. MULLEN
Infantry

Help for the Isolated

In every war in which we have been involved there have been instances when small units have been cut off from the main battle force by distances ranging from a few hundred yards to several miles. In most of these cases the troops suffered a loss in men, equipment and combat efficiency because they couldn't get adequate supplies. Air drops from fixed wing aircraft both by the Air Force and the Army have proven highly successful under certain conditions, but they have certain limitations due to weather, terrain and tactical situations.

The problem, therefore, resolves itself into how to supply isolated units cut off from the main battle force when conditions preclude the use of air drops from fixed wing aircraft.

The helicopter and the portable radar sets, which are part of the T/E equipment of a balanced tactical fighting

force, appear to offer the logical solution.

To better describe this procedure, assume a situation similar to the Hürtgen Forest in the winter of 1944. In numerous instances small units were cut off for three days, approximately two miles in front of the main battle positions in an area measuring about seven hundred yards long and four hundred yards deep. Resupply by conventional air drop was impossible due to low ceilings, concentrated AW AA fire and limits of the drop zone. Army aircraft were also unsuccessful during night drops due to the fact that they habitually missed the DZ.

Helicopters controlled by radar could have successfully accomplished this mission in the following manner: Accurately survey in the location or have a radar set 784 spotted to scan the area. During darkness move this set into the surveyed location. From a map determine the correct azimuth and range to the isolated unit, then have the helicopter take off and fly to a point where it will reflect a pip on the radar screen. By radio, have the radar operator vector the helicopter along a course that will take it over the isolated unit. When the proper point along the course has been reached, the drop signal or landing signal will be given by the radar operator to the pilot. When conditions permit landing, personnel, supplies, and equipmen can be brought in or cut-off personnel and equipment extricated. Under conditions which do not permit landing, drops can be made from low altitude by free drop methods without special equipment. Briefing would be mandatory. It should include time, course and altitude to the point at which the radar can pick up the helicopter; minimum altitude along the vectored course and routes of return.

The entire operation can be performed with a greater degree of accuracy if the isolated unit can fire a mortar round which could be picked up on the radar screen, both in direction and distance, prior to the take-off. By making the pip of the helicopter coincide with the initial pip of the mortar round, map and mechanical errors could to a large degree be eliminated.

The greatest difficulty that will be encountered in this type of operation will be the initial training of crews. Radar operators and pilots will have to be trained as teams until a high degree of proficiency is achieved.

The present type of equipment will impose further limitations on the amount of supplies that may be carried. Loads of 300 pounds will probably be the maximum until more powerful helicopters become available.

This operation should be reasonably safe from effective ground fire on any dark night. This is an emergency procedure only and should be classified as such; however, with proper training, a well equipped force should be able to effect emergency supply to any small isolated units up to a distance of ten miles.

LT. COL. DAVID E. CONDON
Artillery

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Composite FO Teams

Too many forward observers clutter up the rifle company's usually scarce OPs. To provide for the fast and accurate supporting fires necessary to the infantry, the doughboy has to provide observation space to three or four FO parties, with their variegated communications equipment. They crowd OPs and are an engraved invitation to enemy fire.

A possible solution is the formation of a forward-observer team to adjust all the supporting fires the infantry normally uses. This team would conceivably save manpower, reduce the overhead personnel in the front lines, and increase the efficiency of fire adjustment.

The make-up of such a team could be patterned on the present artillery FO party. One lieutenant-observer, recon sergeant, radioman and driver should be adequate. Equipment should include wire, two of the 600 series radios used by the artillery, and a jeep. With this equipment and personnel, the fires of 81mm and 4.2-inch mortars, 105mm and 155mm howitzers, could be dropped where wanted, when wanted, by experts.

With a trained recon sergeant, plus the spare radio, the team splits into two sections for simultaneous adjustment of both mortars and artillery, or for engaging two targets at once.

Simplified adjustment methods may make it seem unnecessary to place all fire adjustment in the hands of an expert team. But for anything other than the most simple missions on relatively flat terrain, the skill and judgment of the observer is still the most important factor. Adjustments on the crests or slopes of steep ridges, adjustments by sound when the target can't be observed, time fire, and night missions make it necessary to have a really trained observer doing the job. An observer who habitually adjusted both artillery and mortars would also develop judgment in deciding just what type of fire would be best for a particular mission: would the 81s best do the job, or should the 155s be called in? An experienced technician could decide this better than several observers, each knowing only the capabilities of one weapon.

Along with more efficient fire adjustment, the team would also be more easily concealed, be less of an administrative load, and its formation would stop the pirating of mortar squad and howitzer section men for FO duty. One type of radio to maintain, plus the spare set and batteries in the jeep, should help with the always-vexing problem of keeping communications in.

Some T/O&E changes would have to be made. Mortar outfits would have to have artillery-type radios. The team would have to be permanently assigned to the rifle company, mortar unit, or artillery. Permanent assignment to the rifle company would probably work best in that the team would have a thorough knowledge of infantry problems and the company commander would be able to know and rely on his observer before the strains of combat. But with assignment to the rifle company there would have to be a firm policy of having the team participate in all mortar and artillery service practices. For the ideal personal knowledge and contact, the team could be temporarily attached, for several weeks at a time during training, to each supporting unit.

CAPT. HARTLEY H. BUSH
Infantry

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FRONT and CENTER

The Infantry School

The Combat Development Section is the new name of the School's former Research and Analysis Section. Operating under the direct control of the Assistant Commandant, the CDS develops and evaluates new doctrine, tactics, techniques and organization of infantry units (including airborne), and initiates requirements for new equipment and weapons for the infantry.

A numerical system for grading Advance Course examinations has been adopted by TIS. This is its first use at Benning although other service schools have used it. The new system provides for five levels of grades (the former letter system had only three). Under the new method a grade of I corresponds to A (superior). Grades of II, III or IV replace S (satisfactory) and U (failure) is now indicated by grade V. Eventually the system may be adopted for all courses taught at TIS.

Grantland Rice has filmed a short movie of Ranger training for civilian audiences. Called "Rugged Rangers" the film was shot at Fort Benning and at the jungle training camp near Eglin Field, Fla., and the mountain training camp near Dahlonega, Ga.

A 60-page mimeographed book describing the organization, mission and functions of TIS has been prepared as a guide for officers newly assigned to Fort Benning. The book describes the function and mission of each of the nine academic departments of the school. It contains many organization charts showing the chain of command, the organizational structure of TIS and its departments.

The Artillery School (Fort Bliss)

Guided missile AA battalions equipped with NIKE missiles are to be organized at Fort Bliss beginning in 1953. Tactical and technical training of the officers and men who will man the battalions will be conducted at the AA & GM branch of TAS and at White Sands Proving Ground, N. M. The battalions will be formed by conversion of conventional AAA units.

This is a logical development, coming out of progressive moves by the Army which commenced after the Second World War and possibly earlier. A couple of years ago a guided missile group headquarters was formed at Fort Bliss. This unit worked out the organization necessary for guided missile batteries, battalions and higher organizations. Now the appearances are that guided missile outfits are to become operational before too long. The Army announced that an intensive study is being made to determine which areas in the United States eventually will be defended by units equipped with guided missiles.

Unique among the dozen artillery battalions of the Antiaircraft Artillery Replacement Training Center at Fort Bliss is the Specialist training battalion with its four batteries of hand-picked trainees.

Set up to meet the Army-wide demand for men who know how to operate antiaircraft artillery warning equipment, the Specialist battalion trains men in the operation of these nerve centers of aerial defense. Its instruction covers training of fire control operators, radar operators, air warning specialists, and communications technicians.

Men who enter the Specialist battalion must meet exacting standards. High level aptitude scores of 105 in general knowledge and 110 in electrical and radio fields are a minimum requirement. In addition, each man must have received at least eight weeks of basic training, during which he must have mastered the fundamentals of combat soldiering.

To qualify these specialists for combat requires intensive training by experienced instructors with sound professional backgrounds. During the Battalion's eight-week program, the men receive 203 hours of instruction in technical subjects plus 181 hours of general subjects.

Eight civilian educators and technicians recently completed a survey study of the Antiaircraft and Guided Missiles Branch of TAS. The group came to Fort Bliss, through cooperation of the Human Resources Research Office, George Washington University, the Office of the Chief, Army Field Forces, and the Department of the Army's Human Relations and Research Branch. The team's visit is expected to yield suggestions and advice regarding the length of various courses in the AA & GM Branch, TAS, improvements in current teaching methods and other valuable data.

The Artillery School (Fort Sill)

The helicopter transport pilot course, the only flight course in which both basic and advanced sections are taught entirely at TAS, graduated 32 pilots in its third class.

The only flight course for warrant officers and enlisted men in the Army today, graduates of the course are made warrant officers if they hold no commission.



Scale-Model Firing Range

To improve the observation and conduct of artillery fire in the rugged Korean terrain, the X Corps set up an artillery school complete with a scale-model firing range complete with mountain ranges. The training simulates actual conditions and trains forward observers in the conduct of artillery fire, the operation of a fire direction center and radio procedure.

The course covers every phase of helicopter operations, from maintenance and navigation to the type of maneuvers that pilots will need in actual service. Prerequisites for enrollment include holding a valid private pilot's license or higher, and at least 60 hours flying time.

Construction of a six-million dollar barracks-building program is under way at Fort Sill. It is expected to take 15 months to complete the project.

Twenty-one barracks, each of which will house 165 men, will be located in the southwest part of the main post, occupying a 68-acre area west of the Field Artillery Replacement Training Center.

The buildings, constructed of concrete blocks, will be T-shaped. The steamheated barracks will have three floors and a half basement. The basement will have arms, wire, radio, locker, laundry, work, and boiler rooms, and a 39-foot square classroom. Offices, kitchens, and messes will be located on the first floor, along with a squad room, lounge, and a day room that can double as a classroom. The second and third floors each have a squad room at each end, noncom rooms, and lounge in the center. All three floors will have shower and toilet facilities.

Consolidation of the department of General Subjects and the Department of Airborne and Special Operations of TAS was effected for administrative purposes. Although the departments keep their separate name and mission, they have a single director, executive, and secretary. Scheduling, clerical, and supply functions are handled by one section.

Notes for the Battery Executive, published by TAS, is a handy, pocket-sized book that gives the officer in charge of the firing battery the information he needs to perform his duties, in compact form. It is not an elementary text. Its 103 pages are stocked with general information in checklist form and detailed information concerning certain techniques and procedures.

Copies can be obtained from the Book Department, TAS, for 25 cents.

A simpler method of teaching the military slide rule is being experimented with at TAS. The clumsy 12-foot slide rule, which required an instructor and two assistants to manipulate, is replaced by a seven-inch, transparent, plastic slide rule that is enlarged by projection for instruction. Only one instructor is needed to operate the smaller instrument, and the projection gives students a clearer picture of how to use the slide rule.

Using the normal sliding lens on an overhead projector, an enlargement of approximately three times is obtained. With an additional lens, the seven-inch rule can be enlarged about eight times, permitting the instructor to demonstrate the finest interpolations.

Transparent graphical firing tables and graphical site tables are being made so that instruction on them can be given in the same manner.

"Roger" is not out yet with Army aviators, although the Air Force has issued instructions to its agencies for adoption of the new international phonetic alphabet, which prefers "Romeo" to "Roger." In fact the Air Force made provisions, in issuing these instructions, that in joint usage the current alphabet (ABLE, BAKER, CHARLIE) would continue to be used. The CAA has taken no action to require Army aviation personnel to use the new (ALFA, BRAVO, COCA) phonetic alphabet. So the Army will speak the current alphabet unless JANAP 125 (A) is changed to prescribe a different phonetic system.

Combat Pay Studied

The Department of Defense is studying the combat pay law to see if changes should be made to eliminate inequities that are said to be in it. Among the complaints: the requirement that Navy ships must be under hostile fire for at least six days in a month for their crews to get the pay; that higher headquarters may be overrun by the enemy and forced to fight their way out without being eligible for combat pay even if their contact with the enemy lasts more than six days.

Preliminary data for the study of combat pay was compiled by a committee of officers representing all the services. The Air Force and Marine Corps were represented by colonels, the Navy by a captain and the Army by a Finance Corps major from the office of the Assistant Chief of Staff, G1.

Instructional Material Prepared By The Infantry School

The following new instructional material suitable for non-resident as well as resident instruction may be ordered from the **Book Department, The Infantry School, Fort Benning, Ga.,** at the prices shown. (The COMBAT FORCES Book Service regrets that it cannot handle orders for these pamphlets.)

WEAPONS DEPARTMENT

Marksmanship, 1000 ft, M1 Rifle: No. 1130. Range practice, safety precautions, 1000 ft instruction practice. 4 hours. 4¢

Mechanical Training, 75mm Rifle: No. 1705. Nomenclature; disassembly; assembly; functioning; stoppages; immediate action; care and cleaning. 4 hours. 10¢

TACTICAL DEPARTMENT

Principles of Offensive Combat: No. 2000A. General principles of offensive combat and their application to infantry units. 2 hours. 65¢

Reserve Regiment in Defense: No. 2512. Missions and employment of the reserve regiment; map and terrain exercise on the employment of the reserve regiment and the duties of the reserve commander, with emphasis on defense against infiltration, the preparation of counterattack plans, and organization of general outpost. 6 hours. 60¢

Regiment in Delaying Action: No. 2519A. Principles of delaying action; map exercise illustrating the planning and conduct of a delaying action to include use of the counterattack. 4 hours. 50¢

COMMUNICATIONS DEPARTMENT

Sound-Locating Set GR-6A: No. 3160. Organization and duties of personnel in counterfire platoon; capabilities, limitations, and methods of employment of sound locating set GR-6A. 1 hour. 10¢

Tactical Application of Signal Communication: No. 3656. Principles in the employment of signal communication in support of tactical operation. 2 hours. 10¢

STAFF DEPARTMENT

Evaluation of Weather and Terrain: No. 6604. Study of critical terrain features, observation and fields of fire, concealment and cover, obstacles, and avenues of approach, effect of weather on above; the place of this analysis in the intelligence estimate. 2 hours. 60¢

Rail Movements: No. 7526B. Principles and procedures used in the movement of an infantry regiment by rail. 4 hours. $1.25

Preventive Medicine: No. 7711. Prevention of diseases of military importance, the commander's preventive medicine program; planning and reporting. 2 hours. 20¢

Pamphlet: Reference Data, Infantry Regiment, June 1952, with errata sheet. 30¢

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Irons in the Fire



Flying "Jet-Jeep"

Army helicopter users are looking forward to the XH-26 Pulse-jet Helicopter (reported in the April 1952 COMBAT FORCES JOURNAL) manufactured by the American Helicopter Company. Weighing a scant 300 lbs, this baby helicopter is completely transportable by jeep or can be air-dropped with complete safety. It has a top speed of 80 miles an hour and carries only one man in present models, but can be modified to carry more. Present flying cargo load capacity is 600 lbs. The pulse-jets which are located on the tips of the 'copter blades are like the ones the Germans used on their V-1 rockets. They require no warmup and the pilot can be airborne thirty seconds after he hits the seat. There is only one moving part in the engine—a valve—which has a minimum life of 50 hours but the replacement is minuscule and the whole engine can be changed in five minutes. The engines burn any low or high grade petroleum fuel such as gasoline, kerosene or diesel fuel oil and at present the fuel capacity permits an hour and one-half of flying time. Simplicity of construction and operation are the key features of the XH-26 and when broken down for truck, jeep or airborne transportation the 'copter can be reassembled by two men in 20 minutes using the standard jeep tools. For air-drop purposes, the XH-26 fits in a 5 x 5 x 14 foot container and can be parachuted to the ground. The free-swiveling pulse-jet engines eliminate the need for any transmissions or anti-torque rotors and thereby greatly reduce the over-all weight of the craft. The engines use a spark plug to ignite the fuel and air in the combustion chamber at which time the spark plug is turned off. Equipped with a two-way radio similar to the walkie-talkie, this six-foot-high "jet-jeep" promises to give commanders improved observation.

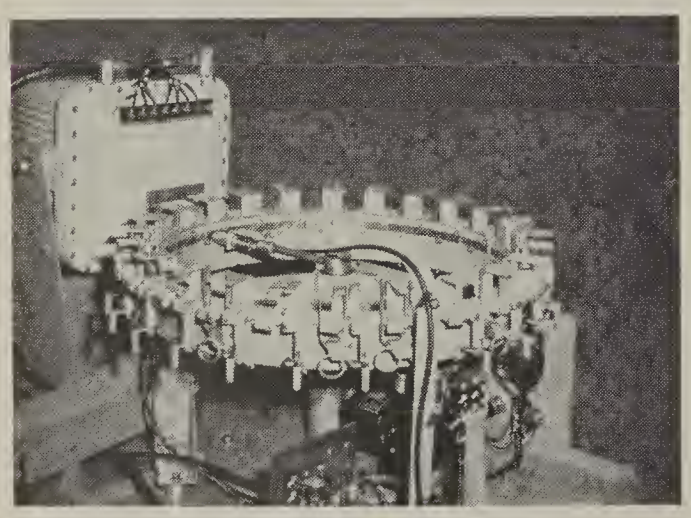


Flying "jet-jeep" for the Army



280 Gun in Production

The Dravo Corporation's Pittsburgh Plant is turning out the new 280mm gun that can fire atomic projectiles. The picture above shows the barrel cradle being assembled to the carriage. (For more pictures of the gun see page 29.)



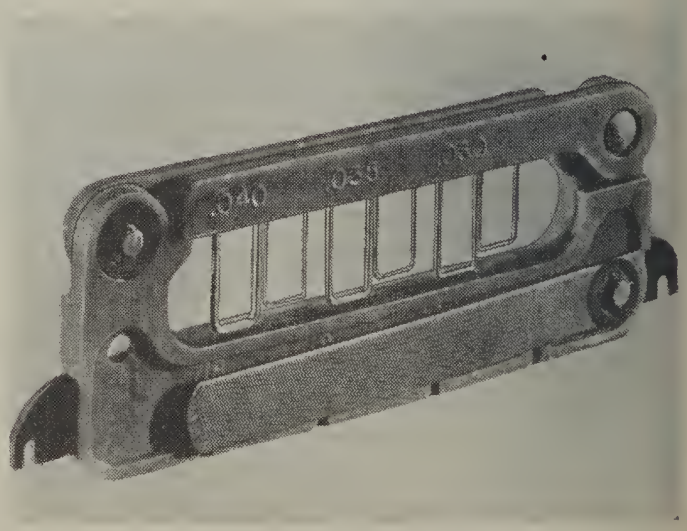
X-ray detects faulty grenades

Grenade Fuze Inspector

General Electric Corporation's X-ray department has come up with an automatic hand grenade inspection machine that promises to save lives of combat soldiers. Using extremely sensitive cadmium sulfide crystals as X-ray detectors, the new machine eliminates the danger of inspectors failing to spot the faulty delay element that causes premature explosions. This new inspection machine automatically rejects all grenades that do not have the slow-burning powder element packed to the proper height.

Multi-purpose Plug Tool

Drivers and mechanics may like the new multi-purpose tool for better spark-plug servicing developed by Champion Spark Plug Co. The new four-in-one tool has stainless steel wire gap gages ranging from .015 to .040 inches; two gap-adjusting slots for electrode bending; a double-cut precision file for refacing sparking areas; and four gasket "reject" slots for determining the utility of used spark plug gaskets. The gasket reject slots provide—for the first time—a true basis of measurement to determine when a used gasket should be discarded. If a worn-out or over-compressed gasket can pass through the individual slot marked for its size, a replacement is indicated. Measuring approximately 3¼ x 1¼ inches, this handy tool—officially the WG-300 Gap Tool—has a durable molded plastic body designed to protect the various components from shop damage.



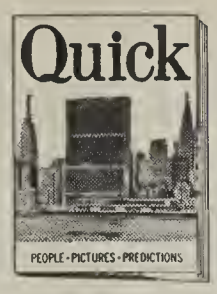
Four-in-one spark plug tool

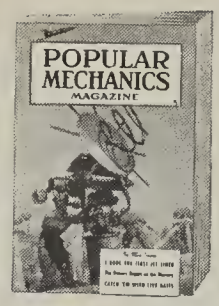






















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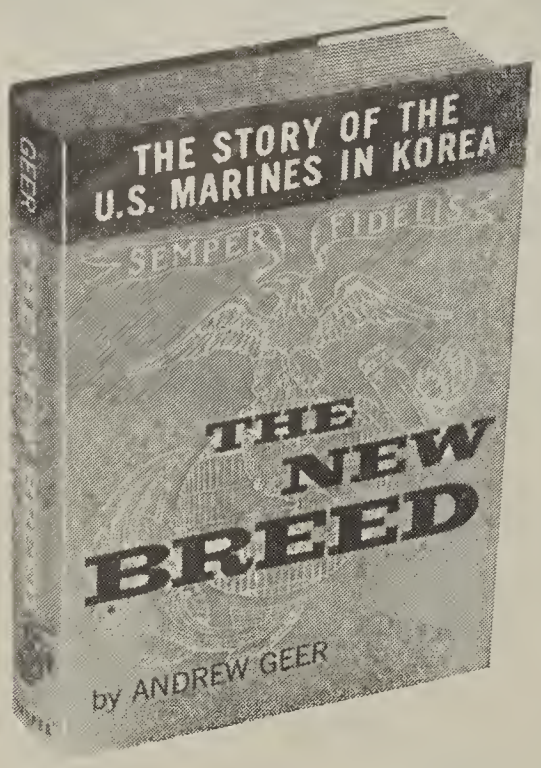
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★ BOOK REVIEWS ★

"WALK ON A STRAIGHT LINE"

GEORGE WASHINGTON, Volume V, Victory With the Help of France. By Douglas Southall Freeman. Charles Scribner's Sons. 570 Pages; Illustrated; Index; $7.50.

Dr. Freeman's fifth volume in his biography of George Washington carries through from the alliance with the French in the spring of 1778 to the end of the American Revolution—the surrender at Yorktown and the final diplomatic exchanges and treaty of two years later. There is not the slightest slackening of historical pace as Dr. Freeman nears the end of his new major work. And in one way at least the phase of the Revolution which he covers in his Volume V has the most pertinent application in the present day.

Indeed, Dr. Freeman gives the subtitle "Victory With the Help of France" to this latest of his Washington volumes. Many pages and passages are devoted to such matters as Washington's tension during the many weeks when he was not too certain of the intentions of the French commander, and the tactful measures required in the extensive dealings by the allies. But of most particular interest to military readers of today will be Dr. Freeman's analysis of Washington's leadership, in the latter part of the book. The author tells us that Washington never tried to set down his canons of leadership. But here are ten of George Washington's principal criteria as Dr. Freeman sees them from his study of Washington's own leadership day by day through the Revolution:

(1) The vital principle of all leadership was discipline; the basis of willingly accepted discipline was an understanding of the cause in behalf of which Americans had taken up arms. Washington believed in 1783 as in 1756 that "discipline was the soul of an Army." He ordered every man to appreciate the importance of what it is we are contending for.

(2) The beginning of discipline was with the commander himself. His leadership was no better than his example.

(3) Discipline involved both reward and performance and in the application of either it called for complete justice.

(4) This justice must be meted out so conscientiously that it would be a commander's armor against embarrassment or reproach. It must be justice that never could be questioned by right-minded men—justice for humble in rank as well as for exalted, for the subaltern on remote detached service as surely as for the officer at headquarters.

(5) Rewards should never be bestowed so freely that they lose their value. A few words in General Orders should be an accolade. Severe penalties ought not to be imposed recklessly, lest they cease to be exemplary and become, in soldiers' eyes, mere actions of cruelty.

(6) The individual officer must never be lost in the mass. He was entitled to candor as well as to justice and, in matters concerning him personally where military secrecy was not involved, he should be told precisely what he could expect. In turn, every officer was assumed to be a gentleman. When opportunity permitted, his wishes were to be anticipated considerately and his reasonable requests were to be granted readily on the theory that he would ask nothing more than a gentleman should.

(7) Regardless of rank, every man was entitled to a courteous hearing of his suggestions and complaints. If his proposal was sound, it should be adopted, and if his grievance was real it should, where possible, be corrected forthwith.

(8) In a young army, inspiration might be more important than admonition. The spirit of officers more frequently was raised by commendation of good conduct than by belaboring their errors. If mistakes were those of inexperience or of circumstance, they might be forgiven, but there could be no mercy for the soldier of confirmed rascality.

(9) An officer should be given an opportunity, when one is offered, of learning and of applying his special abilities, but he should not be assigned to duties it was reasonable to assume he could not discharge. It was the duty of the commander to select the best men he had for specific military tasks. In this, Washington no longer held too rigid regard for seniority and he felt himself entirely justified in disregarding it when he had to do so, though he always took utmost pains to act in a manner that did not humiliate the officer who was passed over.

(10) If the prime essential of leadership was discipline, the attainment of discipline was—first, last and always—a work of patience.

There are equally interesting and rewarding passages that deal with the relationship between the high commander —"commander in chief" as he was often designated—and Washington's relationships with his principal subordinate leaders, particularly Knox who served him faithfully for eight years and never once deserved the slightest reprimand; and Nathanael Greene, also a long term faithful assistant, too, combined considerable staff ability with a high degree of strategic horse sense. (Greene's southern campaign is, of course, covered in this volume.) And as Dr. Freeman himself stresses in his introduction, the particular years of the Revolution that he now covers are rich, also, "in illustration of what happens to recruitment, to supply and to public finance when war weariness overtakes people"; —which has a pertinence today.

The historian as well as the general reader will also enjoy dipping into the appendices in which among other things Dr. Freeman makes the point that a good

deal of the history of the American Revolution deserves rewriting because of the many new sources that have become available in recent years.

Finally, if we may draw one single most important lesson from Dr. Freeman's Volume V it will probably come from his telling us that the best explanation of Washington's success as a military leader was the explanation he gave to an old friend, many years later on. He told this old friend that he "always had walked on a straight line."—G. V.

CONVENTIONAL?

THE EXPLORATION OF SPACE. By Arthur C. Clarke. Harper & Brothers. 199 Pages; Illustrated; Index; $3.50.

ACROSS THE SPACE FRONTIER. Edited by Cornelius Ryan. The Viking Press, Inc. 147 Pages; Illustrated; Index; $3.95.

One main difference between today's younger and older generations is that most of the younger people take Buck Rogers and other space-ship characters pretty much for granted. The older people, or more accurately the *older-minded* ones, still think of moon-rockets or even guided missiles as things still pretty far ahead of us —interesting probabilities, but not for a long while yet to be classified among "conventional" means of warfare.

That word "conventional" is really not a good one for the military man to use. The man who talks of "conventional bombs," for example, or "conventional artillery," may simply use the word as a way of distinguishing old from new. But besides this, "conventional" can gather and has gathered other meanings. I've heard some use it with a tone that seemed to mean "good, solid, tried, tested, practical and dependable," in contrast with the newfangled. And others, with a tone of expecting to land on the moon day after tomorrow, speak of "conventional" military things and seem to mean old stuff ready for the junk heap. "Conventional" seems to throw us forward or back.

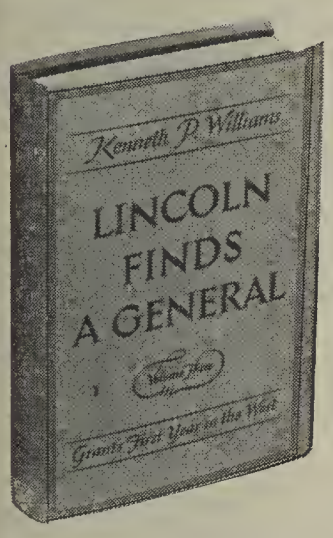
It seems to me that atomic bombs become conventional in the military sense of "established," at the time the third one was dropped on Nagasaki. Or if not at that time, then upon publication by the Department of Defense and the Atomic Energy Commission of the excellent handbook *The Effects of Atomic Weapons*. Guided missiles were conventional by the time a few dozen V2s had landed in England and the launching sites became a principal target for the Eighth Air Force.

When I picked up *The Exploration of Space,* it occurred to me to think over my own feelings about missiles and rocket travel. *Buck Rogers* has never been among my favorite comic reading (though long ago, for those who recall him, *Little Nemo* was).

This deeply interesting and highly readable, yet quietly matter-of-fact book, which has already been so widely praised and read, is perhaps the clearest account of space travel possibilities yet published. I know of no better roundup.

Our most modern planes are traveling somewhere around 1,000 miles an hour. We will need 25,000 miles an hour to be able to escape the gravity pull of the earth. But the difference between 1,000 and 25,000 is mainly a matter of a few billion dollars, not decades of development. Just as the realization of the atomic bomb was, space travel is well within reach of concentrated effort.

Across the Space Frontier is another fascinating book. This is an expansion of a symposium which was first published in *Collier's*. Ten writers and artists contribute



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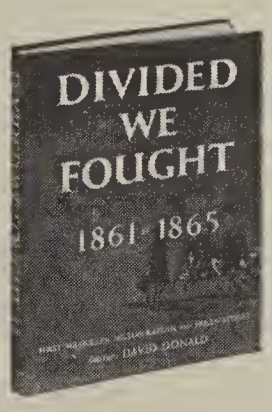
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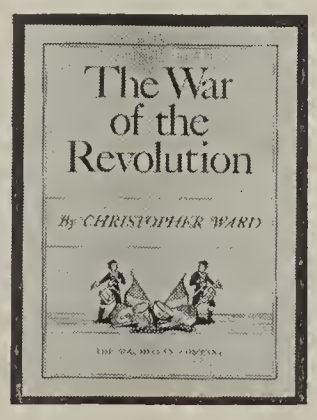
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to make a handsome book. It has more "gee-whiz" in its writing than *The Exploration of Space* does; and its pictures and diagrams are more dramatic and not quite so simple to understand. It goes into more detail about the possible design of a space station, and has a better analysis of the effect of rocket travel on the human organism.

There are some differences of data. Especially to be noted is the fact that the authors of *Across the Space Frontier* consider the risk of space-ship puncture by meteors to be greater than Dr. Clarke does in *The Exploration of Space*. Dr. Clarke calculates this risk as 1 chance in 10,000 on a trip to the moon lasting a number of hours.

Whatever flying saucers may be, they have increased our interest in outer space. But these two books contain no amount of conjecture or guesswork—they are largely proven fact or readily calculable high probability.

It's time for us all to think of jets, rockets and the like as everyday things, bigger and faster models of which will be going out into space as soon as somebody decides it is worth while spending the money and effort to build them.—G. V.

SIX MONTHS IN KOREA

KOREA 1950. Office of the Chief of Military History, Department of the Army. 281 Pages; Illustrated; $1.25.

Pretty nearly 200 pages of photographs and about 100 of text tell the story here of the first six months of the war in Korea. The text is concise and clear, but possibly a bit more formal than it needed to be. The pictures represent a superb selection, showing every type of combat and support activity. Altogether, the Office of Military History deserves a high compliment on producing such an interesting and useful volume in reasonably short order after the history itself occurred.

The narrative is largely held to division, corps and army operations, with task force, regimental and battalion mentioned only occasionally. And few of the photograph captions give the specific unit of the subject. Nevertheless, the scenes are so typical and the photos so well composed and chosen the *Korea 1950* is very much a fine souvenir of all forces there in the first half year.

The several maps are also clear and adequate to such an account. The principal criticism that must be made is that the offset reproduction by the Government Printing Office is by no means as good as it could be for such an otherwise attractive layout.—G. V.

STORY OF THE SIXTH FLEET

ALWAYS THE MEDITERRANEAN. By Commander Max Miller, USNR. E. P. Dutton & Co., Inc. 256 Pages; $3.50.

This will not be remembered as one of Max Miller's better books; it doesn't belong in the same company as *I Cover the Waterfront* or *Daybreak for Our Carrier* or *The Far Shore*. Neither is it as bad as other reviewers have branded it, using the old device of condemning it as a poor history of the Mediterranean when it was never intended as a history.

This is a bit of the story of the Sixth Fleet. Our Navy keeps a fleet in the Mediterranean to show the flag, make friends, and to protect our interests if the area returns to its old form and becomes a theater of war. Since the Sixth Fleet has no Mediterranean base, the ships scatter to various friendly ports after each exercise at sea. Thus each ship, in time, will visit most of the Mediterranean ports. In this book Commander Miller tells how the Sixth Fleet operates, and offers some description and history of the different places his cruiser, *Columbus,* has visited. The tone is light, flippant in places. It will never be a reference book, and won't be a classic, but it does offer some information about what our Navy is doing in the Mediterranean, and might refresh some of us on our history of the area.

There is at least one unfortunate error. Lieutenant General William M. Hoge, if he reads this book, will be shocked to learn that he died of a heart attack climbing out of a helicopter in Korea—Major General Bryant E. Moore was the man Miller meant in his reference.—A. S.

EIGHT WHO ESCAPED

ESCAPE OR DIE. By Paul Brickhill. W. W. Norton & Company, Inc. 248 Pages; $2.95.

There have been many books since the end of World War II on the theme of escaping prisoners of war. Some were successes because of the time in which they appeared, and others because they were stirring tales. It is too early to tell whether this book will be a success, but if it is it will be because of the writing—the time of great public interest is past.

The eight escapees whose stories appear here were all members of the RAF, a notoriously difficult organization to keep penned up. Some escaped from the Japanese, most from the Germans, and their tales are as varied as the places in which they were captured. There are several interesting common denominators in these stories: all took their obligation to escape very seriously; all learned escape techniques as part of their RAF training; all had the touch of arrogance (some might call it self-confidence) that gives a man the courage to try what is, on the whole, a losing gamble; and most had the active help of citizens of captured nations.

The lesson to military readers is fairly obvious. Making the troops escape-conscious has the double effect of causing the enemy to waste manpower to guard POW camps, and it brings back a proportion of captured troops to fight again.—A. S.

BOOKS RECEIVED

THE BEST SCIENCE-FICTION STORIES 1952. Edited by Everett F. Bleiler and T. E. Dikty. Frederick Fell, Inc. 288 Pages; $2.95.

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Off-Duty Reading

Witchcraft and New and Old Breeds of Marines

SO rarely do we find an odd, unlikely corner of history illuminated by a man of profound scholarship and acute perception that such an event makes publishing history. Aldous Huxley, novelist, essayist, and scholar, has applied his talents to a study of witchcraft. The result, *The Devils of Loudun* (Harper, $4.00) is a work of historical perfection on an incredibly fascinating subject. Here we have a 17th Century French convent whose nuns are possessed by devils, a priest accused of witchcraft (specifically, seducing the nuns by remote control) and martyred at Cardinal Richelieu's order, and another priest assaulted and gripped by the demons he had challenged. As he tells this story Mr. Huxley comments on it in light of modern psychological knowledge, making it very clear that we today are possessed by the same devils of the mind, which find outlet in different—and usually more deadly—forms.

SOON to be published is *The New Breed,* by Andrew Geer (Harper, $3.50). This will be a rather informal history of the United States Marines in Korea, but from parts we've read there will be some very good small-unit-action material in the book. Geer was a Marine combat officer in Korea. He has, incidentally, had full access to Marine action report files in doing the book. For a look at a World War II Marine, we can also recommend George MacMillan's magnificent history of the 1st Marine Division,*The Old Breed* (Combat Forces Press, $6.50), published a couple of years back. Since the New Breed in Korea is also the 1st Marine Division, the comparison ought to be interesting.

THE first story about a soldier we can remember reading was a boy's edition of the very old and very beautiful *Song of Roland,* the tale of Charlemagne's great warrior of another time, a man who died doing more than duty demanded of him. At any rate we recently re-read the complete poem in a handsome new edition (Macmillan, $2.75) and got to wondering whether today's youngsters would believe as freely as we did in the radiant sense of duty and honor that Roland lived by. Of course that question is being answered every day in Korea, but not in quite those terms. Ultimately, each of us, even as youngsters, must come to grips with duty and honor in his own way, and perhaps that *is* the only answer to the question. For our money, though, *Song of Roland* can teach a young fellow much of what it means to be a soldier. We don't want to leave you with the impression that this is a boy's book, though, as we've said, it is a splendid thing for a boy to read. *The Song of Roland* is actually one of the great epic poems of the past and in its present translation is magnificent reading for any soldier.

WE would like to remind you that the time is NOW if your Santa Claus is dressed in a mailman's uniform. If you want books for Christmas giving, order them now before the real jam starts. There are some important new books for Fall, most of which will be reviewed in later issues of the JOURNAL, but we want to mention them here:

Recalled to Service, by General Maxime Weygand (Doubleday, $6.75) covers the terrible period of the Fall of France, a field distinguished heretofore by a lack of information. This book should fill part of the gap.

Abraham Lincoln, by Benjamin P. Thomas (Knopf, $5.75) is a new and excellent one-volume biography of the great President, and is considerably more accurate than the Charnwood biography of Lincoln.

Winchester: The Gun That Won the West, by Harold F. Williamson (Combat Forces Press, $10.00) is a magnificent history of a great line of rifles and of the company that produced them. The book will be lavishly illustrated—really a collector's item.

Yorktown, by Burke Davis (Rinehart, $3.50) is the second of the author's splendid military novels about the Revolutionary War, this one about the siege of Yorktown. Davis's writing in *The Ragged Ones* has been compared favorably to that of Kenneth Roberts and Walter Edmonds, and this book is equally good.

O.C.S.

COSTA RICA: A Study in Economic Development. By Stacy May, Just Faaland, Albert R. Koch, Howard L. Parsons and Clarence Senior. The Twentieth Century Fund. 374 Pages; Index; $3.00.

FABLES FOR OUR TIME. By James Thurber. Harper & Brothers. 124 Pages; Illustrated; $2.75.

BEYOND THE HIGH HIMALAYAS. By William O. Douglas. Doubleday & Company, Inc. 352 Pages; Illustrated; Index; $5.00. The story of the emergence of Central Asia as an area of significance in the three-cornered battle between communism, tradition and democracy.

THE MEMOIRS OF HERBERT HOOVER, Volume III: The Great Depression, 1929-1941. The Macmillan Company. 503 Pages; Illustrated; Index; $5.00.

THE KATY RAILROAD AND THE LAST FRONTIER. By V. V. Masterson. The University of Oklahoma Press. 312 Pages; Illustrated; Index; $4.00.

A CRY OF CHILDREN. By John Horne Burns. Harper & Brothers. 276 Pages; $3.00. A novel by the author of *The Gallery.*

FELL'S UNITED STATES COIN BOOK. By Jacques Del Monte. Frederick Fell, Inc. 127 Pages; Illustrated; Index; $1.50.

ADLAI STEVENSON. By John Bartlow Martin. Harper & Brothers. 175 Pages; $2.50.

GIANT. By Edna Ferber. Doubleday & Company, Inc. 447 Pages; $3.95.

FEDERAL AID TO VETERANS 1917-1941. By William P. Dillingham. University of Florida Press. 258 Pages; Index; $4.50. A survey of all major types of aid given to veterans of World War I by the Federal Government.

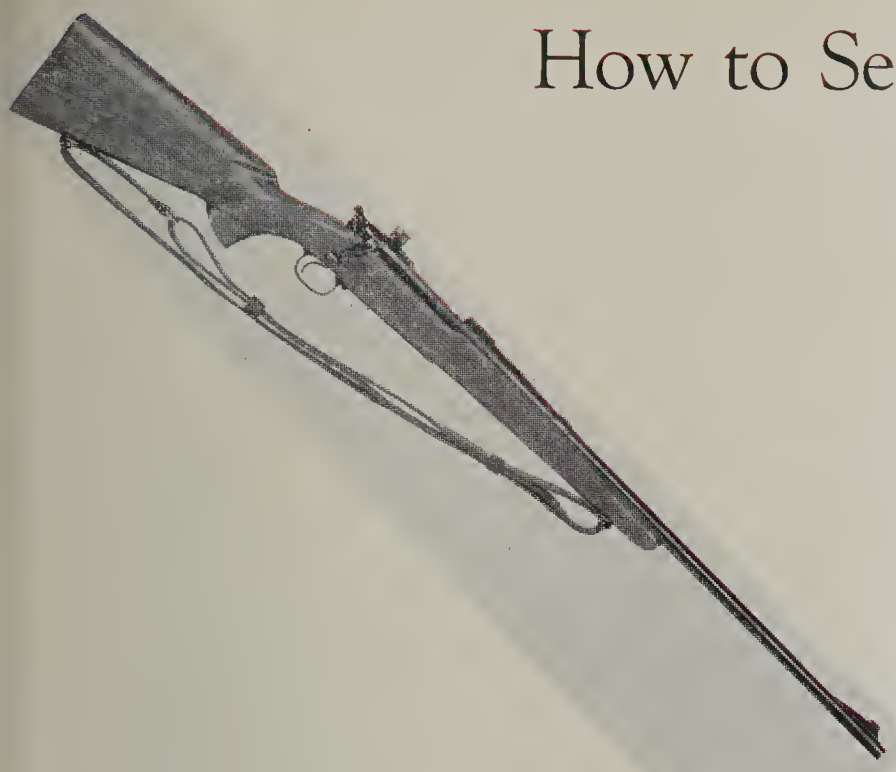
YOUR MARRIAGE AND THE LAW. By Harriet F. Pilpel and Theodora Zavin. Rinehart & Co., Inc. 358 Pages; $3.95.

CHINESE FESTIVALS. By Wolfram Eberhard. Henry Schuman, Inc., 152 Pages; Illustrated; Index; $2.50. A description of Chinese festivals by the author of *The History of China.*

THE GIRLS FROM ESQUIRE. Introduction by F. A. Birmingham. Random House. 308 Pages; Illustrated; $3.95.

COLLIER'S KIDS. Edited by Gurney Williams. Henry Holt and Company. 96 Pages; Illustrated; $2.50.

MASTERING YOUR DISABILITY. By Harold A. Littledale. Rinehart & Co., Inc. 224 Pages; Illustrated; $2.75. "A practical guide for the disabled and their families covering all aspects of rehabilitation."



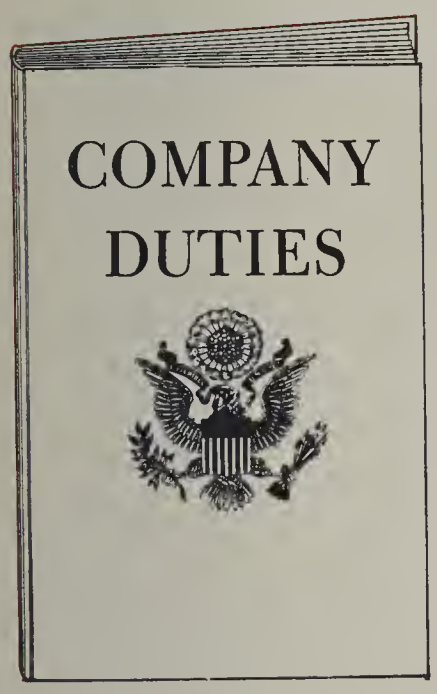
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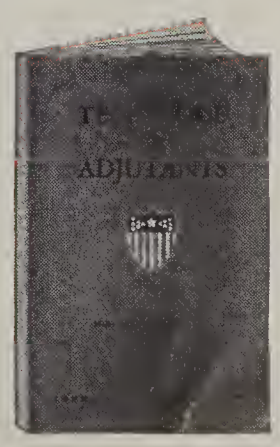
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MAIL CALL IN KOREA

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Too Many 'Administrative'?

A former rifle platoon leader in Korea shudders at the criticism he hears of the combat division's overhead

Lt. Junior Officer

THE portion of the fortieth Lyndon Johnson subcommittee report directing fire at the Army seemed to concentrate on the infantry division, and the notion that too many are ""administrative." Let's take a look.

There are 1,103 men (6 per cent) on noncombatant medical duties. These are the people who have helped reduce by 50 per cent the death rate among the wounded in action in Korea, under the World War II figures. They have made possible the return to duty of 85 per cent of the Korean wounded. Would any American civilian seriously propose a reduction of these men to save dollars and cents?

The Russians with their low regard for human life have far fewer medical men.

There are 248 men in a division's Quartermaster Company, handling supplies. Should our troops eat well or not? Or should they scrounge the countryside for unsanitary rations as the Red troops do?

There are 306 men in the Division Ordnance Company, few enough to keep our many combat vehicles and weapons rolling.

The 182 men of the division Military Police Company guard and process all prisoners of war, form straggler check points and control traffic. Soviet divisions have no MPs. They have small regard for prisoners and often shoot any soldier inclined to straggle.

Our division has a band (43 men) for morale, 37 in a replacement company to keep a flow of new men moving up. There are a few chaplains and their assistants —not found at all in the Red Armies.

Does Senator Johnson or anyone else seriously propose that we emulate the Soviet forces by reducing or eliminating any of the units?

And what about communications personnel? The Johnson report seemed to indicate that the Soviet infantry, with fewer, must somehow be more efficient.

In Korea, the company in which I was a platoon commander, was making an attack upon an enemy objective at dawn. Our advance would carry us over 1,500 yards of open ground before we reached a place where we could assault the enemy's positions. We would have to cross this open ground in the morning light and we were expecting heavy enemy mortar and artillery fire.

We moved to our objective in an open company column to facilitate control in the difficult terrain of the rice fields. Headway was slow. For a long while we were exposed but no rounds came our way until we began our assault. And then a terrific concentration of mortar and artillery fire began to fall, out in the open area we had left behind us.

We took our first objective and then the enemy's mortar positions. The mortars were still there, with ammunition for them. It was plain that there had been no wire or radio communication between their mortar crews and front-line infantry. They had depended on messengers alone.

If we had been in this same situation, we would have slaughtered the enemy. One brief telephone call would have had mortar and artillery fire on the way and subsequent calls would have adjusted that fire and kept it on the enemy.

IN our tables of organization we count a runner as a messenger. Is there anyone on Mr. Johnson's subcommittee or elsewhere who will stand up and tell me that runners don't fight?

Once we were on a hill about to go through a village. The enemy was in a house about fifty yards to our front. The 3.5-inch rocket launcher team was getting ready to fire a round into the house to take care of that particular group. The rocket misfired. One of those split-second changes that combat requires was now needed. I jumped up to change the maneuver plan and sniper bullets began to fly in my direction. Bang, bang, went answering shots. My messenger took good care of the sniper.

That same messenger was my radio operator. Whenever we sent out a squad patrol he went with it and kept me in contact by radio. Once a patrol that he was with was caught in the middle of an open field by enemy fire. By radio I ordered the patrol to withdraw. As they did I saw a man fall. My messenger ran back up through the open area to aid the stricken man. He carried him, his weapon, his own weapon and radio to safety all under heavy fire.

In every situation my messenger's rifle contributed as much firepower as any other rifleman's and he wasn't an exceptional messenger. He was just one of thousands who do their jobs well. In the end he was killed. Do I hear anybody say that messengers aren't fighters? Or that we have too many communications people? When battle comes we seldom have enough.

And who says the company clerk doesn't fight? I know many with scars of combat.

Personnel clerks? They may not fight much as long as they stick to their assigned jobs. But when casualties reduced one company of my regiment to some thirty-odd and no replacements were to be had, our regimental commander sent up some personnel clerks. Paper work bogged down (many records are confused to this day) but we kept a rifle company in the fight.

Paper work may be a nuisance in combat, but Americans demand prompt casualty reports. They don't want to wait until a war is over to find out what happened to a loved one, and then, as in the Red Army, perhaps never find out. The American people also believe in just protection for those who receive disabilities in combat.

IS the first sergeant a fighter or an administrator? I saw one reorganize his company after an enemy breakthrough and with his pistol blazing lead his outfit back to retake their position. The deeds of first sergeants are long and valorous.

Unit administrators? One night during a heavy enemy attack we fired all our ammunition—four bandoleers per man and seven boxes per machine gun. Our unit administrator organized hand-carry parties from a few messengers and truck drivers and led them up to the platoons through heavy mortar fire. This man would never take a commission, but when the officer casualties got heavy he led a platoon. Another in our regiment ended up commanding a company.

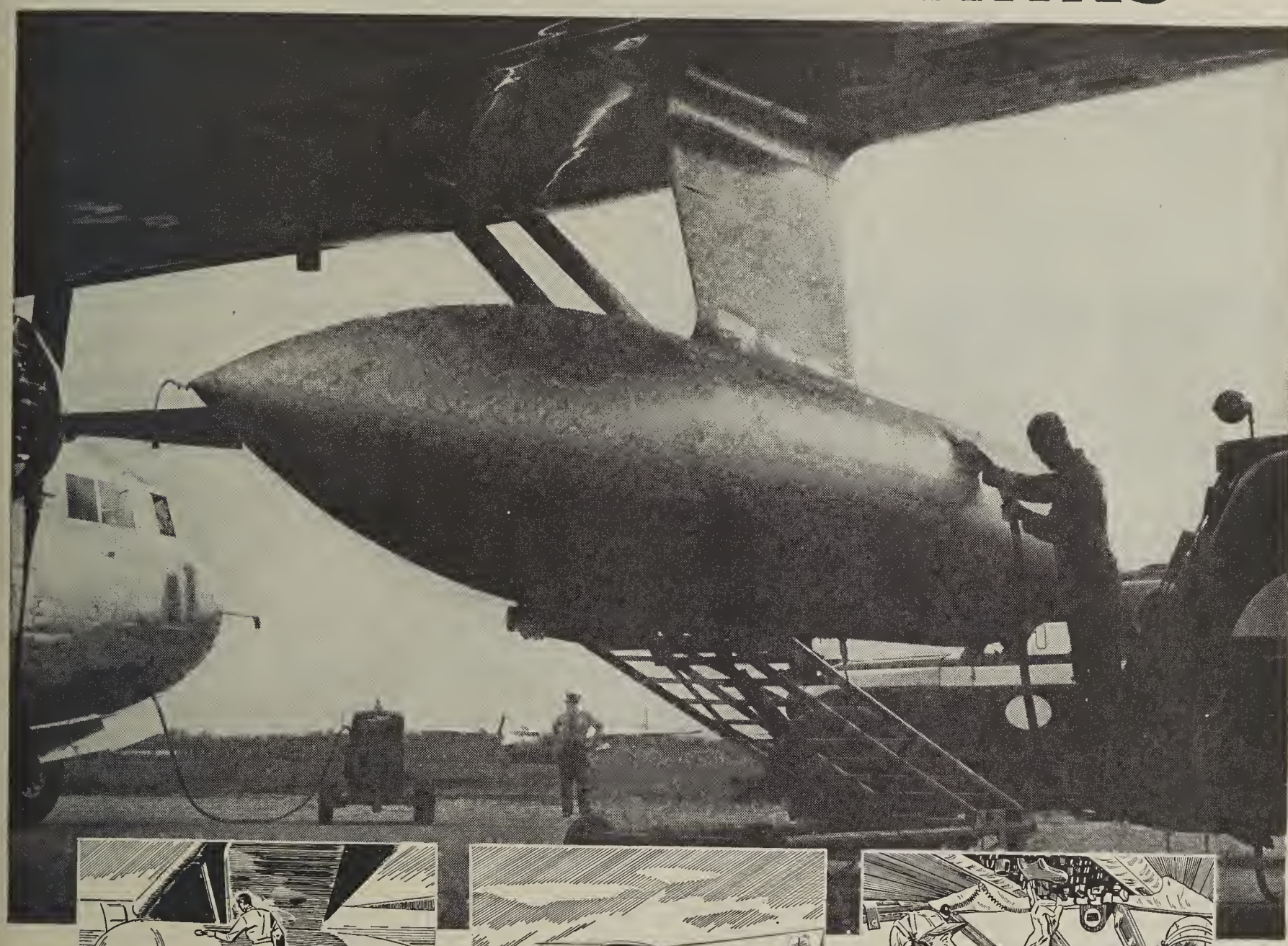
And I know many a cook who has fought to save his kitchen, and some who fought through roadblocks to get the chow to their troops. Hot cooked meals heighten morale.

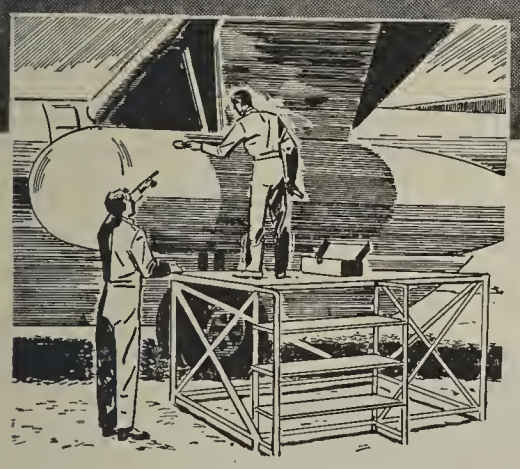
Drivers? Trucks and good drivers mean mobility. One day in Korea we would be on one section of the line at dusk. At daybreak next day we would be on another many miles from the first one.

Vehicles often saved our battalion—brought up aid when we needed it. We held 13,000 yards of front and the enemy hit us hard. The battalion couldn't have held if another hadn't come up by truck. That battalion had just killed 3,000 enemy before sundown on the day that they came to join us. Good trucks and good drivers were all that made such moves possible.

Let's go mighty slow on cutting down any of these elements. A clear case can be made that reduction of any of them will not only add to casualties but tend to close the gap between our powerful, flexible American division and the far less powerful and less efficient divisions of the Red Army. We can improve our fighting units, always; but never by hasty reduction of numbers as numbers.

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UNITED STATES ARMY

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Vol. 3, No. 5 **December, 1952**

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Teach 'em How to Shoot

To the Editors:

In reference to the rate of fire of a light machine gun, it is my feeling that we put out *volume* enough with our present guns, both light and heavy, and that for the jobs we use it for—buttoning up pillboxes bunker embrasures, and enemy troops en masse—we need no further increase in rate of fire. All of us are getting to the point where we don't aim at a specific target but just open up, empty our clip or magazine, and feel like hell when the enemy keeps right on coming, particularly when we have rattled off all the ammo on the position.

Let's keep the rate slowed down, teach men how to shoot, and we will kill a few instead of scaring them and making a nervous wreck of the S4 who is having a bad time trying to keep the ammo coming up.

As to our use of the machine gun I feel that anyone who has watched the guns go into position in Korea, both on the offense and the defense, needs no further comment on its use. The FPL just can't be used on those razor-backs, and if one is foolhardy enough to put the guns in on low ground, guns, gunners, and ammo carriers aren't around the next morning!

Major Clagett has put some fine dope in "What Good is a Machine Gun?" [October issue]. The "school solution" may not be entirely discarded when the Big War comes along, but it can surely stand a lot of revising and revamping to stay up with the current situation.

MAJ. GERALD P. AVERILL
USMC

Junior School
MCEC, MCS
Quantico, Va.

Relearn "To the Hills, Men"

To the Editors:

The present emphasis on taking to the hills in Korea must be one of those tactical lessons that have to be relearned from war to war. Consider the following quotation:

"In as much as in hilly country the routes naturally follow the course of valleys, and as habitations, cultivation, and level patches suitable for camps are generally found in depressions, regular troops engaged in operations in such theaters of war are, when not in immediate combat with the foe, practically compelled to remain on the lower ground. This is so whether they are on the move or at rest. The consequence is that the enemy occupies the crests of the hills which the army passes on the march, or which surround its bivouac when it comes to a halt. Hill-men moreover always retire to the high ground when the troops advance against villages or show dispositions for a fight. As a result, what is technically known as 'crowning the heights' is at almost all times an essential part of any operation in hill warfare, and it can rarely be altogether dispensed with even when the troops are at rest. But although this principle is fully recognized nowadays, and although the precaution of occupying commanding ground whence hostile parties could inflict loss on the army below seems an obvious one to take, it is nevertheless a fact that the system has only of late years come to be adopted as a matter of course." (And so on for a number of pages.)

This is from *Small Wars: Their Principles and Practice* by Colonel C. E. Callwell, third edition, 1910; an official publication of the British War Office. The last printing was in 1914 when Great Wars came in and Police Actions were not called that.

JOHN FOUNTAIN

233 West 11th St.
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More Schooling

To the Editors:

Hardly a service journal is published these days without mention of Army personnel working with a combined staff, a Military Assistance Advisory Group, North Atlantic Treaty Organization Headquarters, United Nations teams, or other international duties. Duty with these organizations has become common, and most officers will probably serve with them during their service career.

The Army wants the best results from officers assigned these duties with our Allies. Just as we are trained for troop duty in the basic and advance courses at Benning, Sill, and other schools why shouldn't we be trained for these international political-military assignments?

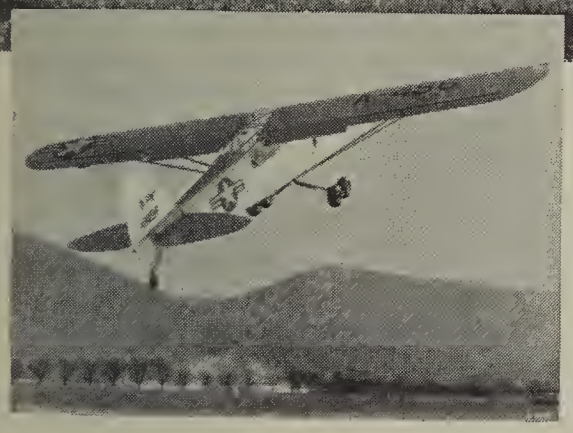
Lieutenants, captains, and majors are serving with these various international units all over the world, and what they do easily affects political as well as military situations. So, why not train them for the duty at least briefly in the basic and advance courses, or even in regimental officer schools?

Such instruction could be one or two hours a week, and include such basic subjects as organization of the Military Defense Aid Program, duty with combined staffs, geopolitics of vital areas, current affairs, as directly affect the military, organization of allied armies, and other facets of our world-wide Army with its many assignments.

The Army school system is very inclusive; certainly one or two hours a week

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2nd Lt.
Joseph C. Rodriguez
U.S. Army
Medal of Honor

SIXTY YARDS TO GO. From atop the hill, near Munye-ri, Korea, the enemy suddenly opened up a withering barrage. The squad was caught; Red mortars began zero-ing for the kill. Lieutenant Rodriguez (then Pfc., with only seven months service) broke loose and dashed up the fire-swept slope, throwing grenades. Disregarding the fire concentrated on him, he wiped out three foxholes and two gun emplacements. Alone, he accounted for 15 enemy dead, led the rout of the enemy, and saved the lives of his squad.



"When you have to take chances to reach an objective, that's O.K.," says Lieutenant Rodriguez. "But when you can find a surer way to reach your goal, so much the better.

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covering a duty we will probably be involved in would be useful.

CAPT. DILLON SNELL

Tactical Dept.
The Infantry School
Fort Benning, Ga.

Dangerous Labels

To the Editors:

I have just finished reading your editorial, "One Artillery," in the October issue. Your broad accusation of "foot-dragging" can and should be resented by every thinking artilleryman. Is a man a foot-dragger just because he honestly *opposes* change? Is a man a "radical" because he *proposes* a change? Let's be fair and sensible. If any individual has actually and actively tried to subvert or delay the integration program after it was ordered and authorized by Congress, then he should be disciplined. I know of no such person at this station.

But let's maintain our right to voice our opinions on any subject without being classed as reactionary foot-draggers or radicals. This attitude kills initiative and dampens our desires to be vocal.

LT. COL. THOMAS A. HARRIS
Arty
Dept. of Motors
The Artillery School
Fort Sill, Okla.

• Our label "foot dragging" was addressed to those who are not "actually and actively [trying] to subvert or delay" but have given less than wholehearted effort to push the integration. It is a matter of degree and who can draw a line that says this is foot dragging, this is active opposition, and this is wholehearted acceptance? We encourage the voicing of opinion and stand fast in believing our magazine is a valid forum for the expression of opinion by both "reactionaries" and "radicals."

What's a Soldier?

To the Editors:

I started this letter to suggest that marines should be included in your listing of "Soldiers" who have received the Medal of Honor.

Then, knowing the sharp-pencilled attitude of the editors, I figured I'd better find out what "soldier" meant before I let loose.

A soldier, according to my Webster, is one engaged in military service. Military, again according to Webster, comes from *millia passum,* a thousand paces—what a good soldier (or marine) should take in his stride, combat loaded. Few sailors or airmen could walk a thousand paces in any craft they are now using, so that pretty well brings the soldier and marine to the same footing.

But, on the other hand, a "soger" in sea language is one who shirks work—obviously derived from the days when troops aboard ship loafed while the sailors toiled.

But, on the other hand, the word soldier comes from *solidus*—a piece of money, indicating that soldiers were once paid in



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To the Air Rescue Service, which conducted the flight this was an important proof of the ability of helicopters to operate on long-range missions. The test was made under severe weather conditions where the skill of pilots and the performance of both of the aircraft were heavily taxed.

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solid money. And why were they paid in money? Because in Roman days they were mercenaries—coming from the word *merces,* meaning something traded (soldiers traded fighting for money). And what does that lead to? Combat pay, naturally. If a soldier is trading his sweat-earned ability for something, he'd be foolish not to trade it for gold.

I don't know what all this adds up to, except that maybe marines should be included in the Medal of Honor listing in the COMBAT FORCES JOURNAL—and that both soldiers and marines should get the same (or more) combat pay as airmen.

LT. RIGHTER

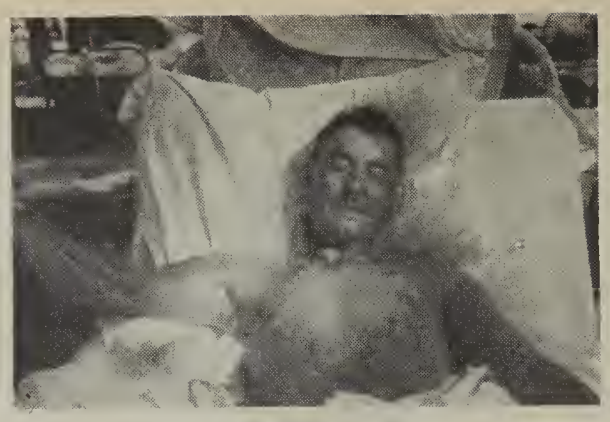
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Marine on Bataan

To the Editors:

I received the surprise of my life when on page 35 of the October 1952 issue I recognized the photograph of a very dear friend. He is the man depicted in the photograph at the top of the page with the open wound in his right arm.

If my memory serves me correctly, this man is Corporal Steven Kozuck, U.S. Marine Corps, and he received the bullet wound which, through the setting in of gas gangrene, necessitated the opening of his arm as illustrated. I might add that Corporal Kozuck received this wound in the engagement with the Japanese on Bataan; the bullet striking his right forearm on the inside and passing along the bone and out the elbow while holding his rifle to his shoulder firing at the Japanese who shot him. Corporal Kozuck, even though hit, continued to fire, killing the Japanese who wounded him. Corporal Kozuck would not leave his unit to receive aid for his wound until forced by the pain and smell of gangrene. Upon arrival at the hospital near Mariveles, the opening of Kozuck's arm was accomplished with no anaesthetic. Corporal Kozuck was again with me as a POW and was killed by a Japanese machine gun while we were in the act of escaping from Camp 10A, Palawan, Philippine Islands.



"Wounded on Bataan"

I have often thought of this brave lad and would appreciate any help you can give in verifying that the photograph in your magazine is of Corporal Kozuck. I would also like to obtain a copy of the actual photograph for my personal album.

LT. D. W. BOGUE

611 Monterey Drive
Oceanside, Calif.

• We obtained the photograph early in 1942 from Time-Life, Inc., although their name does not appear on it. Nor does Corporal Kozuck's. The only notation is "Wounded on Bataan." We are glad to give the original to Lieutenant Bogue.

Teamwork

To the Editors:

As an ardent student of ground combat, I was interested in "Three Regimental Commanders in Korea" by Major W. C. Bryan in the September issue.

About sixty or seventy years ago a man named J. Mason Knox set down a real evaluation of teamwork and I guess Colonel Charlie must be one of his boys. It is too bad we don't have more of them. Maybe it would help to print the memorable words:

"It is not the guns or armament
or the money they can pay,
It's the close cooperation
that makes them win the day.
It is not the individual
or the Army as a whole.
But the everlastin' teamwork
Of every bloomin' soul."

ROBERT L. KUEHN

TUSNG-JAMMAT
Golcuk, Izmit, Turkey

Don't Kid Them

To the Editors:

"Psywar In Korea" by Lieutenant Dale Story in your July issue mentions enemy propaganda as indicting Americans as "indiscriminate bombers . . . brutal users of napalm and . . . Koreans." Lieutenant Story feels this is an injustice.

As an armored veteran of the Pusan Perimeter, I would like to go on record as being a brutal user of napalm. Whatever the Air Force will deliver I'll use. Any Communist who doesn't believe this is making a big mistake.

LT. ARMOR

New York, N. Y.

Rating Procedure

To the Editors:

I consider the COMBAT FORCES JOURNAL a must for all infantry officers because it is an invaluable source of information which every officer needs. After reading Lt. Col. Fellenz's article "How Efficient is Our Efficiency Report?," in the August issue, I can't resist the temptation to tell about my experiences as a rating officer.

In 1947 I was rated by a colonel who called me into his office and told me how he was rating me and why. Since then I have followed this procedure. Not only

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have I noticed the same reaction as that of the field grade officer mentioned in the article, but I observed a marked improvement in the proficiency of the officer rated. Whatever the reasons are for not letting an officer know how he stands among his group, the failure to get the best out of that officer is not the best utilization of manpower. Our Army deserves the best of each officer.

MAJ. LUCIUS E. YOUNG
Infantry
Hq, 370th Armored Inf. Bn
APO 46, c/o PM
New York, N. Y.

Rangers in Korea

To the Editors:

As a former Ranger, I should like to express my deep concern over their fate. Their deactivation was the deepest disappointment of my Army service. In two tours of Korean combat duty, I have yet to find an American unit that could begin to equal the spirit of determination, aggressiveness, pride and comradeship displayed by the Rangers.

Although the Department of the Army did publish an explanation for the Rangers' deactivation, it was little publicized, and I have heard many conflicting views. I cannot help but feel that the Department of the Army owes it to the fine men who suffered and died in Korea as members of the 1st, 2d, 3d, 4th, 5th, and 8th Ranger companies to provide a clear, concise and well publicized explanation for the deactivation of these fine units. If such an explanation is not possible, perhaps you could publish an account of the brief, but bloody history of the Rangers in Korea.

I hope you will help correct any impression that the Rangers were a failure. Nothing could be further from the truth.

CPL. RICHARD D. ELLMERS
3d Recon Co, 3d Inf. Div.
APO 468, c/o PM
San Francisco

Find Something Wrong!

To the Editors:

"This rifle's dirty, soldier."

"Yes, sir."

"See down that barrel? See that speck about halfway down?"

"Yes, sir. I see."

"Well, take it back to the barracks and clean it. Bring it to me in the orderly room before you ask for your pass."

Back to the barracks goes the weary soldier. Weary, that is, of the harassment. However, he has been in the Army long enough. He is reconciled. So, he goes to the barracks. Hits the sack. Smokes. Watches the others take off for town. Then, just before the deadline for Lieutenant Perrybingle to leave the area, he takes his rifle to the orderly room. Lieutenant P inspects it minutely, especially the offending barrel.

"Hmm, that's better, Tackleton. You may draw your pass now."

"Yes, sir. Thank you, sir."

Of course, you have seen this little drama (comedy?) more than once. The pitiful (humorous?) part of it is that the rifle has not been touched since Lieutenant Perrybingle first inspected it.

Why?

I don't know.

Generally speaking, the purpose of inspections of arms and/or equipment is to determine that each man has his assigned arm and/or equipment, and that they are in good repair, clean and workable. Or so I thought. This seems to have been changed, in some cases, to the establishment of a certain norm. Five (or ten) per cent of the arms of a given unit will be dirty; ninety (or eighty) per cent will be passable; and five (or ten) per cent will be clean. With this yardstick five (or ten) per cent of the men will be gigged. More will be gigged if dirt is actually found.

There once was a senior army instructor who visited a unit. He watched a group of trainees being taught TO MARCH TO THE REAR. The sergeant in charge had explained, demonstrated, and pulled out for personal supervision members of the group who could not execute the movement. All could now do TO THE REAR after the fashion of recruits everywhere.

The sergeant had appointed one of the better men in the class as drillmaster. The weather was bad so the drill was held inside a building. There were no more than ten paces to spare from wall to wall. The sergeant was letting the tyro drillmaster have it. He did not interrupt with corrections or suggestions. The boy had all he could do to get the troops turned before they ran into the wall. He needed no coaching from the sergeant. He needed only to concentrate on what he was trying to do. Nor did the troops need:

"You're out of step, Gillespie."

"Don't swing your arms when you turn, Swinburne."

"Pivot on your left foot, Caleb."

They had all they could do to keep in step and spin to the right about on command. So the sergeant sensibly kept his big mouth shut. After the troops were halted he corrected the men—and the drillmaster.

All this is the background for the senior army instructor's criticism of the class.

"It is a good class [that preface is to ease the pain of what is to follow] *but*, the sergeant should have been correcting the men as they marched."

Now I ask you, is that constructive, deserved criticism or is it that plain old harassment?

M/SGT. JACK ACLIN, JR.
Co E 117th Inf., TNG
Paris, Tennessee

• The Editors don't think inspections are often conducted by conscious or unconscious harassers. But it may happen at times and so we sympathize with Sergeant Aclin and wish for his sake and ours that all men were perfect.



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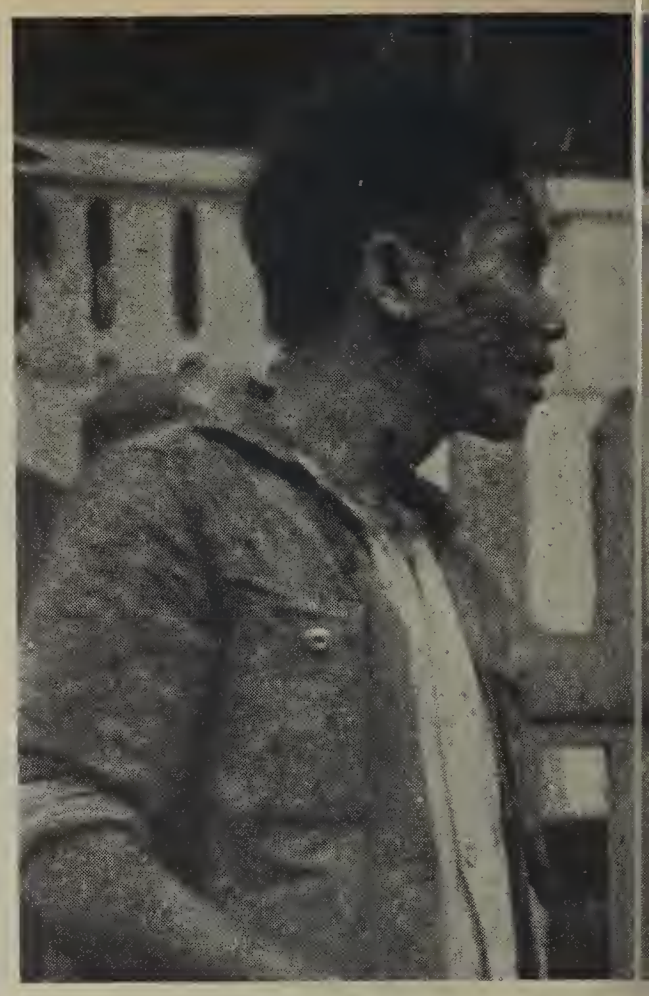
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People's War

Lieutenant Colonel Edward A. Raymond



In Indochina, an exhausted Viet Minh partisan captured by the French is held for questioning by staff officers.

MARX and Lenin called guerrilla warfare "people's underground war"; Stalin has called it "Stalin warfare," "underground envelopment," and "the fourth dimension of war." Guerrilla warfare is defined by many authorities as operations carried out by small independent forces, generally in the rear of the enemy, with the objective of harassing, delaying and disrupting his military operations. The potential of guerrilla warfare is infinitely greater than that.

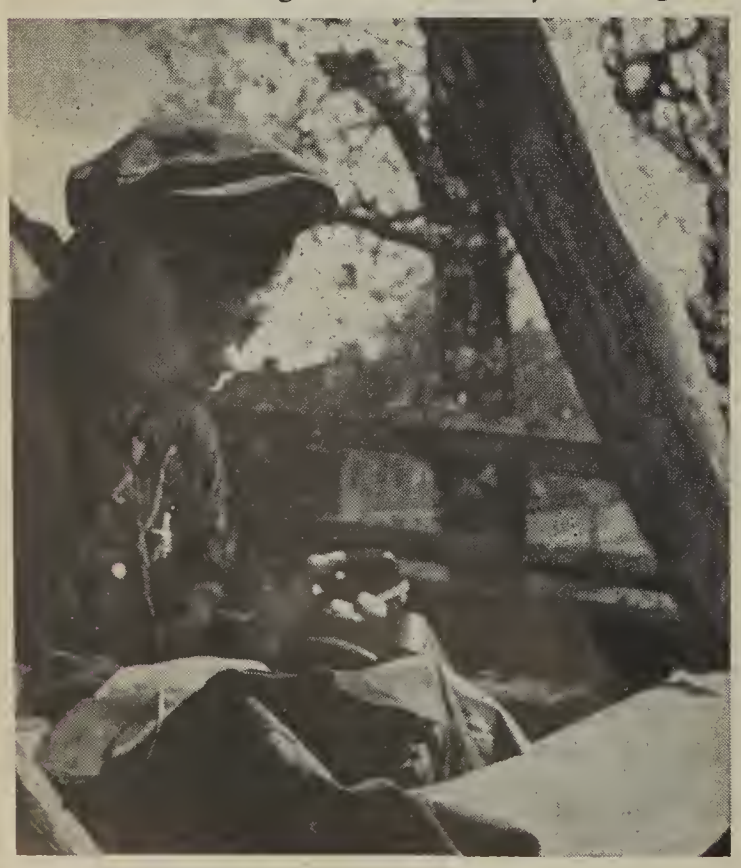
At the end of 1949, China, the most populous nation in the world, had been seized from within by overgrown guerrilla warfare. On the Eastern Front, in the last two years of World War II, Soviet and Polish partisans engaged more Nazi divisions on the German lines of communication than were deployed on the so-called front. Guerrilla forces under Tito freed Yugoslavia from Axis occupation. In Greece in 1947-1949, Communist guerrilla forces threatened the existence of the central government. In Indochina guerrilla forces threaten to seize the state. In each of these cases, guerrilla warfare played a major role, far beyond "harassing and delaying," and more far-reaching than the term "disrupting" implies.

One important characteristic is found in each case: the margin of victory was provided by a powerful, outside supporting power. Chinese forces first received American aid, then our Soviet ally transferred to the Communists captured Japanese arms. Partisan forces behind German lines on the Eastern Front in World War II used munitions left behind by retreating Red Army forces, or, exceptionally, flown in from unoccupied regions. British and American seaborne and airborne logistical support turned the tide of battle in Yugoslavia. The Soviet satellites supported Greek Communist guerrillas and Communist China supports the forces of Ho Chi-minh in Indochina.

The harassing, delaying and disrupting mission may be appropriate for guerrilla forces in a secondary situation, but does not measure the full potential of this form of warfare under optimum conditions. The ultimate aim of guerrilla warfare, as of all warfare, is to defeat the enemy. In its truest form, guerrilla warfare is civil war—insurrection against a regime—with participating units growing in size and evolving into full-scale conventional armies and forcing the existing government or occupy-

LIEUTENANT COLONEL EDWARD A. RAYMOND, Artillery, is on duty in the office of Chief of Psychological Warfare, Department of the Army. During World War II he served in the field artillery section, Allied Forces Headquarters, Mediterranean Theater of Operations.

Clandestine radios are essential items of guerrilla equipment. This World War II Russian partisan is operating a sending set outside of Leningrad.



In the guerrilla's manual of tactics, sabotage is a favored instrument. Here



Guerrilla warfare is a "people's war"—whether the aims are for good or evil. But the full power of guerrillas cannot be exerted without the help of a powerful outside supporting power.



Guerrillas can wage active warfare when the prospects of linking up with the invading army are bright. Members of the French Underground brought out long-hidden weapons on the eve of the Allied invasion of Southern France in 1944.

ing power to withdraw.

The support of an external friendly power is required if the potential of guerrilla warfare is to be fully exploited. Missions of a particular guerrilla force, both strategic and tactical, must be based on the objectives of the outside supporting power.

The pages of history are red with the blood of unsuccessful revolts. Guerrillas can see all too plainly how few arms they have, how little ammunition. Food and transport are constant problems, and much of the energies of fighting units must be expended in staying alive. Shortages of medical supplies and the difficulty or impossibility of evacuating and hospitalizing casualties are a severe drain upon morale.

Yugoslav partisans blew the tracks and derailed a Nazi troop train.



To fight on for years against overwhelming odds requires a form of fanaticism. As a drowning man clutches at a straw, guerrillas seize upon outside assistance. The idea of outside support is immensely enheartening. There is a danger that it may cause too much enthusiasm, give rise to too ambitious a program and outstrip the possible. A greater danger lies in not realizing the price which must be paid for outside support. There may be too little national feeling; regional loyalties, the personal ambitions of leaders, political differences or religious schisms may obstruct the purposes of the outside power or powers. The royalist Mikhailovitch and the Communist Tito fought each other in Yugoslavia. More tragic was the effort of the Polish Home Army to free Warsaw from German occupation as the Soviet Army approached from the east in 1944. The Soviets delayed their attack and an estimated 100,000 lives were sacrificed, most of them needlessly. In World War II in Greece, there was bitter political competition among the partisans of ELAS, EDES and EAM.

THE mission of guerrillas in a strongly occupied country must be wedded to the mission of the outside supporting power. If the supporting power plans an early invasion, the guerrillas must conduct their operations so as to attract a minimum of attention. Bands of guerrillas should not lay a paper-chase trail of leaflets, posters or publications, although such activity may be conducted by static noncombatant formations, dissociated from the field forces. Widespread sabotage, nuisance raids and terrorism attract too much attention, like a dog with firecrackers tied to his tail. This may seem obvious but certain Allied headquarters in the Second World War, charged with the coordination of

Guerrilla sabotage can help an invading army. In 1944 the French Resistance harassed the German rear, destroying his lines of communication.



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behind-the-lines activity, had a number of interested staff sections. Each section tried to keep its particular ball in the air all the time.

A secondary guerrilla mission in the situation of a friendly invasion impending may be a coordinated military effort for tactical advantage in landing areas or drop zones.

From February to May, 1944, the French Resistance placed top priority on preparing for the Normandy landings. In this situation there were sufficiently large French forces in the area to permit preliminary sabotage. Just before the landings and during their execution, a full-scale campaign was conducted on communications and isolated troop units. These operations (plus the aerial campaign) prevented six German divisions from reaching the battlefields of Normandy during the critical period of 6 June to 26 July 1944. German heavy armored units, forced to move by road instead of rail, arrived in the battle area too late and too disorganized to fight. General Eisenhower estimated the value of the French guerrilla forces to be equivalent to fifteen Allied divisions.

THE early Communist theorists, Karl Marx and V. I. Lenin, paid particular attention to the struggles of the Spanish population against Napoleon, the Austrian campaigns in Italy and also to the Franco-German War. They popularized the concept of the People's Underground War.

In their studies they tried to find out how an organized popular movement, without proper arms, can be led to fight with any hope of success against highly organized and well-equipped armies. F. O. Miksche, in his interesting study, *Secret Forces,* points out that the Franco-Spanish War was exceptionally enlightening. French forces of considerable size for their time—some 670,000 men and 520 guns—crossed the Pyrenees between 1807 and 1813 to conquer Spain. Only 250,000 men and 250 guns returned to France. Allied victory in the Middle East, in Mesopotamia and Palestine in the First World War, was won with the help of the Arab free rangers, under the semi-legendary Colonel T. E. Lawrence.

Lawrence's significance is that he largely destroyed the Turkish forces and gave us new concepts of guerrilla strategy. While the Arabs were more mobile but less able to bear casualties than orthodox armies, the Turks were almost uninterested in loss of men, though not in loss of matériel, of which they were short. Superb at sitting tight in a trench or firing at a directly oncoming target, they could neither adapt themselves to, nor endure, the strain of fluid operations. Lawrence seized on that weakness by destroying railroad equipment, thus paralyzing the Turks.

When invasion by an outside supporting power is not imminent, the strategic mission of the guerrillas is served by distinctly different tactical means.

The primary tactical mission in this situation may be psychological warfare, with the objective of maintaining hope of eventual liberation and overcoming unreasoned fear of the occupying power. Acts which will foster widespread reprisals on the part of the enemy are to be avoided. Under the cloak of apparent

Propaganda is a prime weapon of guerrillas. This collection of posters and attack plans were captured by the Dutch from insurgent Indonesians.



collaboration, slowdowns are encouraged, not only to hamper the enemy, but to show people that they are not helpless; that united they are strong. All appropriate methods of communication are utilized, but in most situations, leaflets or the clandestine press will be the most effective. "Ideas," writes Brigadier McLean of the British Army, "are more important to guerrillas than bullets."

Outside headquarters should be aware of the risks run by guerrillas, not only in obtaining information, but in transmitting it as well. Requirements should be limited to data which actually will be used, and not merely ornament files and grow obsolete before they are needed. For example, if biographical information on minor, routine figures in the occupying forces is woven into broadcasts, it can be considered to have been used; but a further screening of requirements is needed to ensure that the effect attained justifies the collection effort.

Resistance in the Balkans led to classic examples of guerrilla warfare in the high mountains. Very primitive and poorly equipped at the start, the resistance organization improved to such an extent that towards the end of the war it had almost attained the standard of a regular army. Whereas in the spring of 1941 the Germans required only twenty divisions to destroy the Yugoslav and Greek armies within a few days, the subsequent occupation and policing of the countries required fifteen German and thirty Italian, Bulgarian and Croatian divisions. Territories the size of Belgium were governed by Yugoslav partisans. Documents found in the possession of the Chief of the Press Bureau of the Supreme Command of the German Army reveal that the German losses in killed in the Balkans amounted to 24,000 as compared with only 12,000 in Africa.

WHEN the supporting power does not envision an invasion, but wishes guerrillas to contain the maximum number of occupying troops and deny the enemy logistical support, appropriate tactical missions alter. Here they can be described adequately as harassing, delaying and disrupting.

In view of the indefinite protraction of guerrilla activity in this situation, psychological warfare again plays a foremost part. When armed action is imminent a sense of accomplishment and progress maintains enthusiasm. When there is no liberation in sight, when the battle against tremendous odds goes on indefinitely, the climate for noncooperation and sabotage is hard to maintain.

It is in this situation that widely scattered acts of terrorism are appropriate, from the guerrilla point of view. The Communist-inspired Hukbalahaps have greatly retarded the postwar development of the Philippines and have tied up large government forces. Communist Chinese guerrillas in Malaya have interfered with the economic rehabilitation of the country and forced Great Britain to use large military and police forces in Malaya.



A People's War enlists both sexes and all ages. These grenade-carrying lasses were members of the French Resistance. They performed as guides and scouts.

CONFLICT between the government and communist-led and communist-supported guerrillas broke out shortly after the liberation of Greece and for four years threatened to dislocate completely the economic and political life of the country. The communists gained complete control of the northern border areas of Greece and were supplied by the communist nations of Albania, Yugoslavia and Bulgaria, which in turn were supported by the USSR. Within these areas, regular communist military forces were organized. Additional forces waged guerrilla warfare in other sectors of Greece. Only after large-scale economic and military assistance from the United States was the Greek Government able to overcome the communist forces.

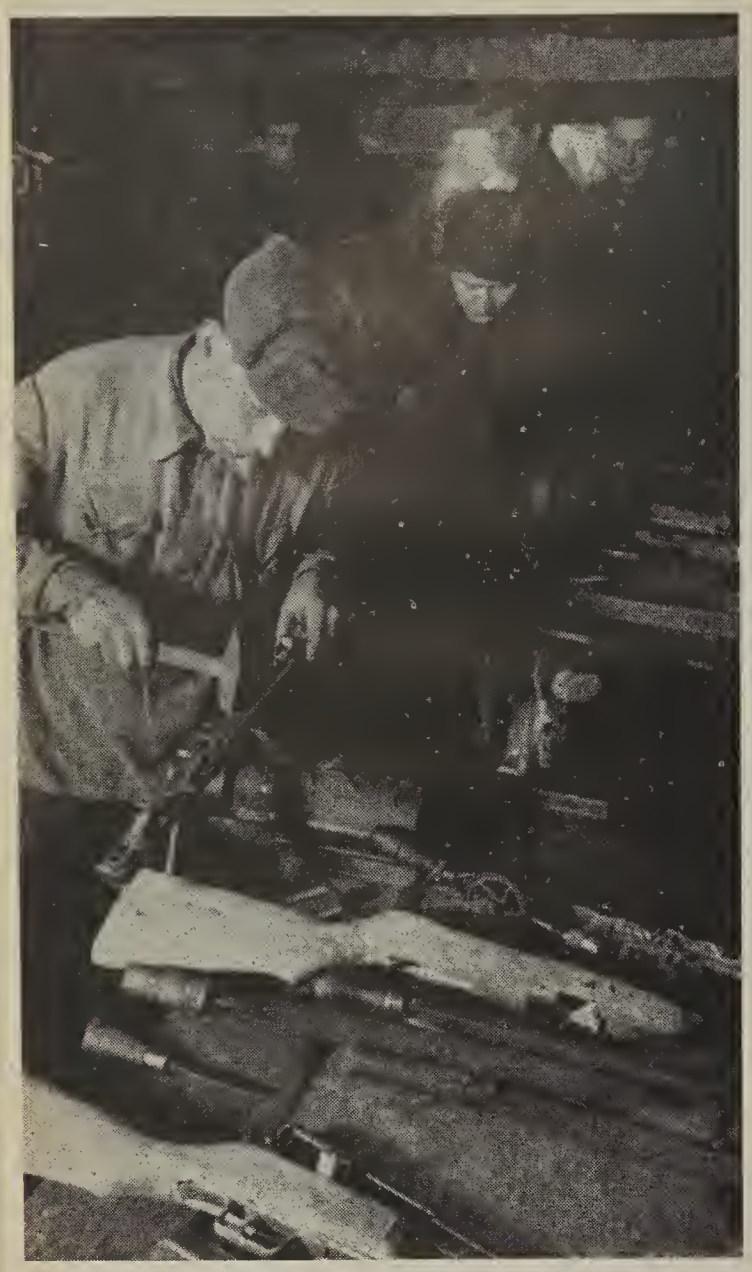
The Indonesians, who had never accepted Dutch control, openly resisted Dutch efforts to reoccupy the country at the end of the war and effectively denied a large part of the country to the Dutch military forces. As a result, the Netherlands government granted virtual independence to the area.

Today Indochina is in danger, and at least 150,000 good French troops are tied down there.

RESISTANCE movements are of a predominantly political character and political factors must be considered with great care by an outside supporting power. There is a high premium on picking a winner among rival resistance factions. Allied strategy in Yugoslavia, though fraught with controversy then and now, provides an excellent illustration of this type of difficulty. The support given to Tito's followers in Yugoslavia was a factor in causing the Catholic Croatian Ustachi to support the Nazis. Another extremely serious political consideration is the postwar effect of guerrilla warfare.

Normal warfare has for its object the destruction of the opposing army in battle; aerial attacks demolish the adversary's industrial centers and cities. But the "People's Underground War" destroys the soul of a nation, systematically leading it into disobedience and disrespect of law and order. As in all revolutions, the "People's War" means complete chaos, a savage struggle in which the end justifies the means, and vengeance, trickery, and even treachery, play a great part. Each action provokes a reaction, and the consequent reprisals engender hatred.

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Guerrillas usually find weapons hard to come by. This Soviet photograph is said to show Russian partisans repairing weapons in a behind-the-German-lines machine shop arsenal.

The question of political commitments is a major one. Normally, firm political commitments are made in advance. Lawrence of Arabia promised the Arabs their independence. When it did not materialize, resentment festered in Arabian bosoms.

External propaganda efforts may have some political effect. These should fight xenophobic tendencies in the guerrilla forces. German attitudes towards the Italians were so arrogant and overbearing that many Italian soldiers joined the *partigiani* in their successful resistance movement in northern Italy in 1944-45.

Native leaders who have been trained outside the resisting country are of great value in ensuring harmony of viewpoint after the conclusion of a campaign. The Lenin Institute in Moscow trained Mao Tse-tung, Chou En-lai, Peter Dimitrov, Ana Pauker, Josip Broz (Tito), and others.

Continuous external support is of great importance, and should include tactical and technical liaison, delivery of arms, ammunition, explosives and supplies demanded by the tactical situation.

In 1937 Mao Tse-tung wrote a remarkable treatise on guerrilla warfare. Colonel Samuel B. Griffith, USMC, has made an English translation of this little-known but important volume. Mao concludes his treatise in the following manner:

"Historical experience is written in blood and iron. We must point out that the guerrilla campaigns being waged in China today are a page in history that has no precedent. Their influence will not be confined solely to China but will be world wide."

When Mao Tse-tung wrote these words, observes Colonel Griffith, "he commanded a communist guerrilla army which the Japanese considered as an essentially unimportant collection of tattered bandits. Mao now rules a nation of 460 million people. He is the chief architect of a strategy designed to repeat the communist triumph in China all over Asia."

Mao likens guerrillas to fish. "The people are the water in which the fish swim. If the temperature of the water is right, the fish will multiply and flourish," he said. Military raids into enemy territory, like those of Morgan and Early in our Civil War, did not have the benefit of support from the local population —the "temperature was not right." Anti-Communist powers controlled the water in which the communist fish were swimming in Greece and Indonesia. Can it be done in time of war in communist-held territory? In the Soviet Union, the German invaders were greeted as liberators in 1941 and two million Red Army men deserted. This does not prove that any such number would desert to a conventional invasion force today, but it does indicate their true feelings about Stalin. There are other indications. When forced repatriation of displaced persons from Germany was suspended after World War II, very few of the hundreds of thousands remaining were willing to go back to the USSR. Many citizens of the Soviet Union have risked their lives to escape from despotism and reach the West.

DISCONTENT in the satellite states is hard to measure; although the number of defections to the West is many times as high, opportunities to escape are greater than for Soviet citizens. Chou En-lai himself is the authority for a 1950 estimate that there were no fewer than 250,000 "bandits" in Communist China.

"Mao Tse-tung," writes Colonel Griffith, "has basically revised the theory of 'The People's War,' sired so long ago by Karl Marx. All students of guerrilla war, including at one time Mao Tse-tung himself, have believed in the past that guerrillas by themselves can never win through to final victory; they can never be but a complement to regular forces fighting at the front. But Mao Tse-tung proved in China that guerrillas, given the support of a great power, and given modern techniques of communications and supply, can themselves be transformed into regular forces. They may then win total victory."

Homemade bombs and land mines are a most valuable asset to guerrillas. These two Red Chinese guerrillas display a land mine used by Mao's forces.



Crisis in Manpower

In a year when the Army's need for skilled manpower is critical, it will lose about half of its experienced soldiers and train 750,000 new men

Gen. J. Lawton Collins

THERE is a danger that the nation might become so enthralled by machines and weapons systems that we may lose sight of the fact that man—the individual soldier—is the supreme element in combat. Despite all our scientific advances, our nation must realize fully that wars are still won by men fighting on the ground. Korea reaffirmed this truth. It proved once again that it takes men in position on the ground to prevent an aggressor from moving.

I should like to re-emphasize—and I say this without any intention of decrying the tremendous importance of the other services—that the Army's role, as in the past, is ultimately the decisive one. As I have said many times, in my judgment, air power will have a more important role in future war than ever before. I do not differentiate between naval air power and Air Force power; I mean total air power. But, nevertheless, the ultimate and decisive role is played by military forces on land.

The ground soldier to whom we confide this grave responsibility for final victory or defeat, this man who meets the enemy in face-to-face combat, must be first class. Combat records and casualty lists prove that the Army's role in warfare is the most dangerous, the most exacting, the most crucial test of man's physical, mental, and moral strength. Second-class manpower has never made a first-class Army, and we dare not entrust our American youth and our nation's security to second-raters.

The most precious commodity with which the army deals is the individual soldier who is the heart and soul of our combat forces, particularly the Infantry. If the battalion, company, platoon, and squad leaders of infantry are not skilled in the business of leading troops in action, and if they do not possess top-light qualities of leadership, the direct consequence is the unwarranted loss of life and perhaps loss of the battle.

Since there is no counterpart in civil life for the profession of arms, the Army must select its combat leaders from the best qualified personnel available. My experience has been that among our non-professional soldiers, the best leaders come from all walks of life and are invariably men who are used to making decisions and to accepting responsibility —two of the essential prerequisites for Army command. Many have had engineering or other technical training and experience.

Having made my plea to you for a better understanding of the Army's needs for top-flight manpower, let me mention an additional problem which is typical of those which face an army of a democracy.

YOUR Army today is a going concern with more than 700,000 men—almost half of our personnel—overseas. They are on assignments of critical importance to our national safety and to the security of the entire free world.

We have six divisions committed in Korea against a vicious enemy and five more in Europe where they are potentially subject to attack with little or no warning. In all, we have a total of 13 divisions overseas which must be supported with men and matériel. Otherwise they cannot do their jobs.

We have seven divisions here at home upon which we depend for the necessary operation of our rotation program. Unless we have divisions, regiments, and battalions to conduct unit training and to fit our soldiers for their places in our combat teams, then we cannot provide the thousands of replacements which are needed every month to support our present rotation program.

This difficult problem is made even more serious by the fact that we are inducting new men and releasing veterans at such a rate that during this year the Army will turn over about half of its personnel; and we will have to receive and train almost three-quarters of a million new men. This rapid turnover presents a tremendous problem. What would the average business and professional man think if he were suddenly asked to release half of his trained employees in less than one year's time —workers, accountants, skilled technicians and the like—and to hire new personnel, train them, and, at the same time, still continue to conduct an efficient, economical operation? That is exactly what we must do this year.

Many of these men whom we are losing are highly trained specialists and key combat leaders. Basic soldiers can be trained in a period of about four months, but we cannot do that with the noncommissioned officers or with the many highly skilled technical specialists which modern war requires. Their skills require not four months, but a year or more of intensive schooling.

Personnel in the lower grades are, for the most part, replaced by newly trained inductees, but the more highly trained and experienced replacements must come from the only available source, namely, from other units. The difficulty of providing sufficient numbers of them to support the rotation program is shown by the fact that thirteen divisions are stationed overseas while only seven are active here at home. Thus, in effect, each unit here in the United States, while losing its own personnel through separation, must train replacements for the personnel that are lost and, at the same time, supply replacements for two units overseas.

TODAY, with so many advances being made in the mechanical tools of war, there is a tendency on the part of some to overemphasize the importance of machines and to underestimate the importance of man. But the true value and importance of these tools to defend our freedoms depend finally upon the skill, the courage, and the conviction of the men who use them. Men will aways be more important than machines, and on the battlefield men have always determined the issue and always will.

These paragraphs are from an address by the Chief of Staff before the Carnegie Institute Society of Pittsburgh on 16 October



Bradley and Ridgway meet in Paris.

Storm Warnings over NATO

Squall or Hurricane?

Colonel Buffet

STORM warnings that the press has hoisted over NATO would seem to give little hope for firm commitments for 1953 by the fourteen NATO nations. But storm warnings over NATO are nothing new, so an examination is in order to determine whether the storm is a squall or a hurricane.

All the current doubts and misgivings about NATO can be summarized in questions:

(1) Will the 1952 goals announced at Lisbon—fifty divisions and 4,000 front-line aircraft—be reached by the end of 1952?

(2) Will the military estimate of minimum needs—approximately ninety divisions by the end of 1954—be achieved? Are they realistic goals in the face of the economic and domestic political situations in the European nations?

(3) Will U. S. military aid be continued? How much? How much can the European nations do for themselves without U. S. aid? (These questions will plague our Congress and Europe's parliaments in the next few months.)

(4) Are the 1954 estimates of the Military Committee really valid or will atomic and other untried weapons decrease the need for forces for the defense of Western Europe?

(5) How can the European commanders make valid plans for defense when necessary information on atomic weapons is withheld from them and their planning staffs? Will U. S. laws be liberalized so that there can be realistic appraisals of the contribution of atomic weapons?

These difficult problems are the reasons for the storm signals. And certainly they will tax the initiative, understanding and cooperation of all nations. But the tempest may not be as heavy and the skies as dark as the questions themselves indicate.

Right now in Paris, the annual review of NATO military commitments and capabilities is in process. Experts from fourteen nations, headed by Lord Ismay, Secretary General of the North Atlantic Council, are listening to presentations of the armament programs, and the military progress reports of each of the nations. From what they hear, the annual review committee will decide, in its own opinion, what each nation should be able to commit to NATO in 1953. In making this recommendation, each nation's productive and economic capacity is considered, as well as its military manpower. This same kind of survey was produced in the fall of 1951 by the Temporary Council Committee and its "three Wise Men," headed by U. S. Mutual Security Agency head, W. Averell Harriman.

In the review procedure, the committee may come up with a total of combat units that falls short of the minimum needs as established by the Chiefs of Staff of the fourteen nations. In Lisbon it was reported that a "flash estimate" of the economic-industrial capacities by the TCC totalled about ten per cent less in divisions and airplanes by 1954 than the Military Committee required. It was decided at that time to let the Military Committee goals stand—let them represent the minimum strength essential to

The Supreme Commander, Allied Powers, Europe

Reviews Dutch troops at Amsterdam . . .



Calls on French President Auriol at the Elysee Palace . . .



defense—while waiting to see what could be accomplished toward those goals in 1952.

The same problem is bound to arise again this year. There will be pressure from the economic advisers to scale down 1954 requirements to a more attainable figure. The U. S. "stretch-out of twelve to eighteen months for the combat forces originally planned by the end of 1954 will be quoted and also the United Kingdom's "stretch-out" of its rearmament.

If the goal is approximately 100 divisions by the end of 1954, with fifty divisions ready at the end of 1952, the 1953 goals should be about halfway, or seventy-five divisions. However, if it were decided that the goals could only be met economically by 1956, then the balance could be spaced over four years. This would fix the 1953 goals at one-fourth the balance, or in the neighborhood of twelve more divisions.

THERE are indications that the annual review will not be ready for a December meeting. However, military men on both sides of the Atlantic are working hard on military answers that will be economically feasible, and politically acceptable to all of the NATO nations.

There are reasons to believe that it will be impossible to produce firm commitments of forces and equipment and dollars in December. The U. S. Secretaries of Defense and State, attending the meeting, will not be the men who will head the departments after January 20, 1953. Without firm commitments from the United States, especially on military aid, many of the European nations will not be able to measure the extent of their 1953 contributions, either in fighting units, or in production. Present U. S. military aid funds are appropriated only until 1 July 1953, although large balances of still undelivered goods and dollars will continue to flow long past that date.

The United States has continued to press for a December meeting despite these obstacles because the U. S. delegates would like to give the President some indication of European efforts and capabilities. This would make it possible for the U. S. to prepare a soundly defensible budget for military aid.

Another reason for delaying firm commitments is that some European nations have said that largely increased commitments to NATO at this time will cause economic and political crises in their countries. Grave doubts about the ability of the United Kingdom to meet her commitments were reported, apparently quite accurately, early in the summer. The Prime Minister has since announced that the United Kingdom will come very close to meeting the 1952 commitments. However, the economic pressures will probably make continued rearmament effort a grave domestic political crisis in the United Kingdom, as well as a grave dollar problem in the whole sterling area.

Taking up the major problems in order, here is how it looks from a military viewpoint at this time.

The 1952 Goals from Lisbon

At the end of October, it appeared that the NATO nations would be able to raise all of the 25 active divisions, and almost all of the 25 "reserve" divisions scheduled for 1952. The reserve divisions are not the same as U. S. reserve units. In NATO, the reserve division is supposed to have approximately one-third of the division on active duty; the rest of the men, up to eighty-five per cent of strength, are assigned to units and living in the vicinity of the division headquarters; and the entire division is supposed to undergo at least two weeks, and preferably one month, of training in each calendar year. In Italy, this fall, the NATO maneuvers included a test of the "reserve" divisions, actually calling them to duty, and sending them north on maneuvers. Reports indicated that the system was quite successful.

In aircraft, the NATO forces will come very close to fulfilling the 1952 goal. It was estimated by one NATO official that there would be "no more than a 300 aircraft shortage," while others predicted that the full complement of 4,000 front-line aircraft would be in units in the NATO area.

The 1954 Goals

The 1954 goals for NATO have never been officially announced. But it has been reported that the estimate is between 95 and 100 divisions, and approximately 7,000 front-line aircraft. Navy totals have seldom come into speculative consideration because the combined U. S.-British-French naval strength is considered sufficient to meet NATO and could be easily expanded if necessary.

It is quite apparent that these 1954 goals will not be reached unless drastic

Watches French paratroopers in Germany . . .



Inspects Italian troops at Udine . . .



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changes in the international situation make necessary much more extensive mobilization by all nations. But the German contribution, which is estimated at approximately twelve divisions, could bring the NATO nations closer to a realization of the total.

Optimists point out that the German, Greek, and Turkish contributions almost total the balance between 1952 and 1954 goals. However, to offset these manpower gains is the fact that the addition of Greece and Turkey greatly enlarged the area NATO must defend. Although Greece and Turkey may not be able to give additional forces to the Supreme Commander for the defense of the center, the increased effectiveness of their forces may reduce the threat in the center.

Gauging the accomplishment by the "stretchout" in the United States and Great Britain, it would appear that the Military Committee requirements for 1954—if they are allowed to stand—will not be met until 1955 or 1956.

United States Military Aid

Continued United States military aid to NATO is a touch-and-go problem of the new U.S. Congress. So far $13,406 billions have been appropriated, which includes a program of $621 millions from fiscal year 1952 appropriations for offshore procurement—buying military items in the NATO countries with American dollars. Congress will want to know how much the European nations can do for themselves without further U.S. aid, and how much longer the U.S. must give economic assistance. Although there can be no official estimates of what the United States program will be for fiscal year 1954 (July 1, 1953 to June 30, 1954) at this time, previous testimony to Congress would indicate that it should continue to be about six billion dollars. If the military aid program, or the Mutual Assistance Program (as it is called, when it includes economic and Point 4 programs), is reduced considerably below the five billion dollar mark, the "stretchout" will be taut indeed.

Atomic Weapons

Economic capability underlies all of the uncertainty about reaching the 1952, 1953, and 1954 goals. But there is another uncertainty—atomic weapons. Newspaper stories suggesting that the application of atomic weapons and other "super weapons" may reduce the size of the forces needed for the defense of Western Europe, have had heavy play in Europe. Since the stockpile of atomic bombs is held by the United States, only U. S. military planners are in a position to properly evaluate the results that can be expected of atomic weapons. Furthermore, the U.S. planners are the only ones who have any idea of how much of the atomic effort can be allocated to NATO, how much must be retained in reserve, and how much allocated to other efforts in the event of a third world war.

This is an awkward situation. It leads to wishful thinking and optimistic guesswork by those who get their information from the newspapers. Also, without the atomic factor, international military planning is unrealistic. General Bradley directed a public statement on both these conditions at a press conference at SHAPE in September. He said in part:

"Recent speculation concerning the effect of atomic weapons on the defense of Europe has led to some international wishful thinking in regard to NATO requirements that we, the U.S. Joint Chiefs of Staff, believe could be misleading and dangerous. Optimistic estimates concerning the availability and effect of atomic weapons could mislead some nations into thinking that not all of the NATO forces planned for 1952-53-54 need be provided and trained. Such thinking would not be justified.

"General Ridgway and General Gruenther and some of the American members of their staff have access to 'restricted' data on atomic energy capabilities. In addition, all the public data on atomic energy matters and atomic weapons, including considerable civil defense information, are available to General Ridgway and all members of his international staff. Information on atomic weapons developments will continue to be integrated into NATO plans, and the forces to implement them, as progressively and rapidly as possible.

"In my opinion, with what we know now and what we can predict for the future, the forces presently scheduled for NATO are essential to the collective defense, even with optimistic estimates of the future capabilities of atomic weapons. The military committee estimate of requirements for ground and air forces is designed primarily to stop any initial aggression against the NATO

Gets a look at Russia from Turkey . . .



Inspects Greek infantrymen at Salonika



area. These forces could not provide all the military strength essential to launch a counteroffensive or to win a possible war. This would call for a much more extensive mobilization.

"We must keep firmly in mind that atomic weapons are in various stages of development and that each kind would be available in a different quantity for use in the event of war. Therefore, it would be premature for any planners to attempt to substitute atomic weapons for sound balanced forces. Actually, no matter how many atomic weapons or bombs the collective NATO defense may eventually have on hand, there will always be a need for sufficient ground strength to force the enemy to concentrate for attack.

"In my opinion, no tested knowledge of atomic weapons to date indicates any reason to let up in our efforts to build up our collective security forces to at least those that we are planning for the next few years."

Later in the press conference, in response to a series of questions by the correspondents, General Bradley indicated that international military planning could be improved greatly if more knowledge of the atomic energy capability could be shared with the other NATO nations.

In answer to one question he said, "I believe all of us feel that, eventually, atomic weapons may—I shall repeat—*may* have some effect on force requirements, both as to numbers and as to the nature of units. But that is some time in the future. . . . certainly anything we can do within the next two or three years in increasing our forces is still not going to be greater than our eventual requirements, even when you give full credit to the number of A-bombs and new weapons which may be available four or five years from now. . . ."

One questioner wanted to know how high officers at SHAPE who were not Americans can make plans when they don't have access to atomic information.

General Bradley answered: "Our Atomic Energy Act, passed by our Congress in 1946, put certain restrictions on information which we could give to anyone other than those United States personnel who are specially cleared to receive such information. That is a restriction placed on us by law, and so you will just have to trust the American members of your staffs on certain phases of it. . . .

". . . We hope to get that law changed some time, and that will permit us to divulge the information to selected members of Allied staffs. . . . When we do, your question will be fully answered. In the meantime, we will do the best we can."

General Bradley's statement that he favored increased technical information to other NATO military planners was received favorably in the United States and continental press.

ALL of these factors—the economic problem, and the application of new weapons—would indicate the need for a reappraisal of the over-all NATO strength and requirements. Such a reappraisal must be based on a sound intelligence estimate of the Soviet-satellite capabilities both in conventional and in atomic weapons and our own knowledge of atomic energy capabilities. Meanwhile NATO military chiefs, including General Ridgway, support the view that whatever can be accomplished in the line of additional forces for 1953 will certainly be less than the minimum needed and that as great an effort as possible must be made in the next calendar year.

During September, senior United States officers and senior officers of other NATO nations observed the maneuvers which included the naval maneuver MAINBRACE, the two ground maneuvers HOLDFAST and EQUINOX, and the exercises in northern Italy. All of them returned with optimistic reports about the capabilities of the units already organized and the use they are making of the equipment being provided.

In response to a question, General Ridgway summed up the state of our Western defense in Europe as follows: "I think they are coming along as well as we can expect. There are many things left to be done. We are fully conscious of that. In the training field we can never be satisfied. We have many logistical problems to solve. The most reassuring feature of these maneuvers that I find is a recognition on the part of all concerned of what these shortcomings are and a determination to correct them as rapidly as we can."

Did that forecast a squall or a hurricane? Or a determination to batten down the hatches?

The answer will be apparent in the next few months.

Visits British officials in London . . .



(left to right: Adm. Sir Rhoderick McGrigor, First Sea Lord; Field Marshal Sir William Slim, Chief of the Imperial General Staff; Lord Alexander, Defense Minister; Gen. Ridgway; Air Marshal Sir John Slessor, Chief of the Air Staff)

Meets Gen. Thomas T. Handy at Frankfurt.



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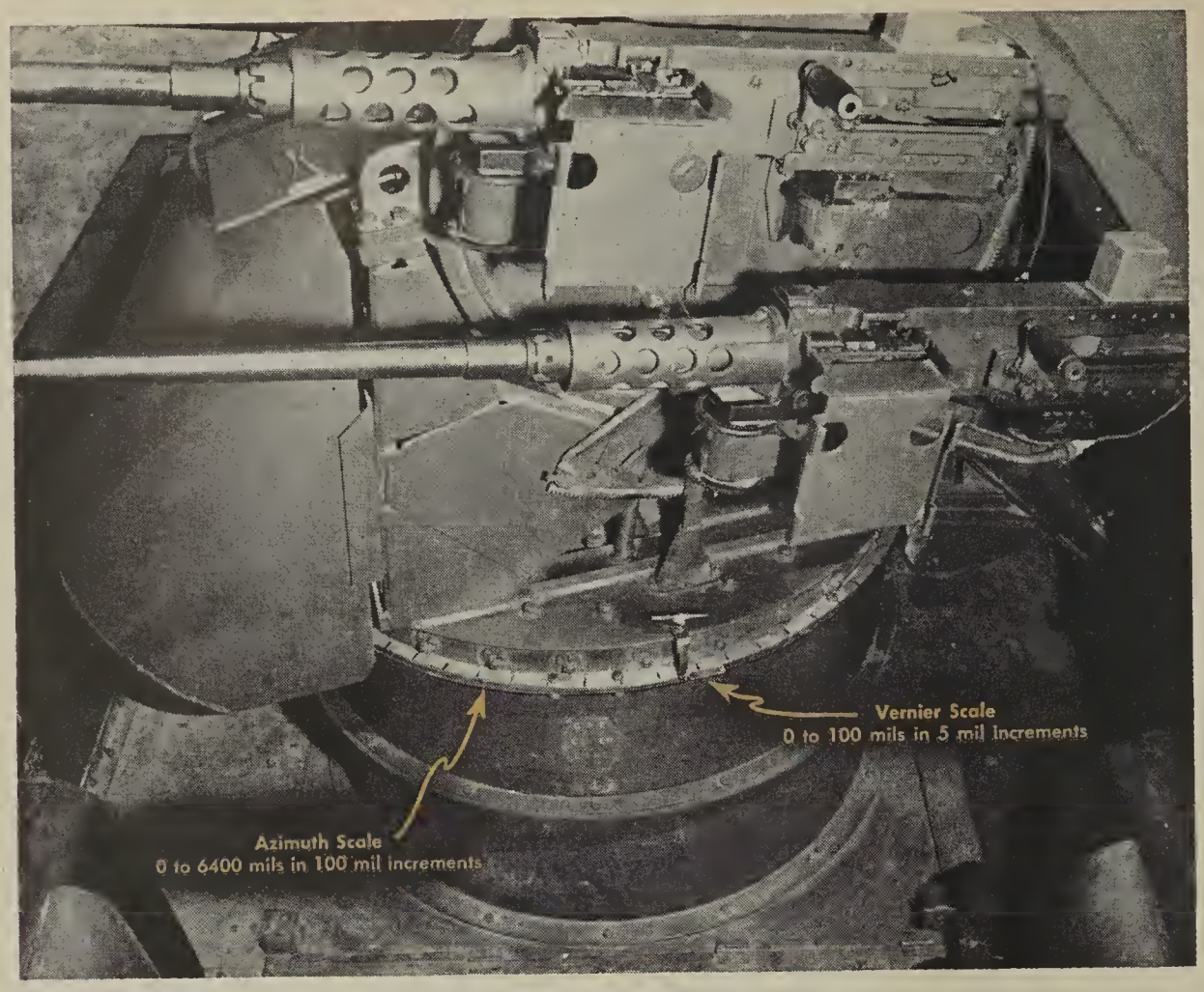


Figure 1. *Azimuth and vernier scales installed on turret*

Hit a Ground Target With the Quad .50

Maj. Robert V. Reitan

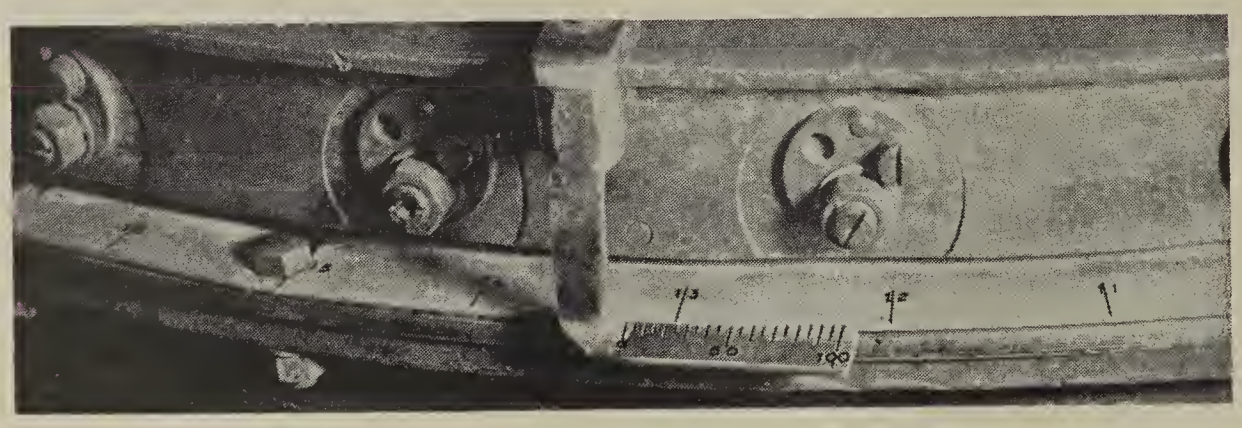


Figure 2. *Aligning the vernier on the azimuth*



Figure 3. *Limiting displacement of observer*

THERE are many different ways to determine azimuth and elevation and to adjust the fire of the quad .50 machine gun on the M16 motor carriage when used on indirect fire missions against a ground target. One simple method has been devised and tested by the AA & GM Branch of The Artillery School.

A 6400-mil azimuth scale of aluminum was made and installed on the stationary part of the turret. The scale is divided into 100-mil segments. A vernier, graduated in 5-mil increments, was designed to clamp on the movable part of the turret. With this azimuth scale and vernier, one or several M16s can be fired as a battery. (*See Figure 1.*)

The turret can be oriented in azimuth, using an aiming circle or M2 compass by two methods:

(1) Orient the aiming circle, then sight along the right inboard gun and note the reading on the azimuth scale. The cannoneer sights the right inboard gun on the aiming circle. He then positions the vernier at the 100-mil reading of the aiming circle's back azimuth and extends the vernier past the 100-mil reading by the exact number of mils.

Example: Aiming circle reading is 4524 mils. Back azimuth reading to gun is 1324 mils. Position the vernier so that a 24-mil reading on the vernier is aligned with the 1300-mil graduation on the azimuth scale. Result: azimuth reading of 1324 mils. (*See Figure* 2.)

(2) Using the M2 compass, sight the instrument along the right inboard gun from a distance of about 50 yards from the mount and have the cannoneer sight the right inboard gun on the compass. Give him the back azimuth of the compass reading. He places the vernier on the azimuth scale at that reading and the turret will be oriented on north.

Since the azimuth scale is fixed, one limitation is present. Because of the armor plating on the front of the turret, the left side of the M16 in occupying a position, should not face the general direction of fire because the vernier would be under the armor plating.

THE tank azimuth method can also be used. If the gun crew and observer can see some prominent terrain feature or object in the general direction of fire, the observer will instruct the cannoneer to sight along a barrel until it is lined up with the prominent point. At that time the cannoneer will set zero index

MAJOR ROBERT V. REITAN, Artillery, is on duty at the AA & GM Branch of The Artillery School, Fort Bliss, Texas.

Range	Elevation	c
1500	15	2
1600	17	2
1700	19	2
1800	21	2
1900	23	2
2000	26	3
2100	29	3
2200	32	3
2300	35	3
2400	38	3
2500	42	4
2600	46	4
2700	50	4
2800	54	4
2900	58	4
3000	63	5
3100	68	5
3200	73	5
3300	78	5
3400	84	6
3500	90	6
3600	96	6
3700	102	6
3800	108	6
3900	115	7
4000	122	7

Figure 4. *Caliber .50 firing table*

of the vernier to any even 100-mil reading on the azimuth scale and note the reading. In this case the turret would be oriented to the terrain.

In laying the mount in elevation the other cannoneer uses the gunner's quadrant, placing it on the top cover of a machine gun. Care should be take that it is placed in the same position on the top cover for each elevation setting. (A possible solution would be to inscribe quadrant seats on the top cover.)

In setting the readings in azimuth and elevation, the turret operator is directed by the cannoneers. With the turret drive switch in the off position, the operator turns the control handles in the appropriate direction as ordered. By a fast flip of the turret drive switch, *on* and *off*, the turret will move slightly. An operator with fast reflexes, using a turret with a properly adjusted power drive unit, can set azimuth within two mils at all times and elevation to the nearest one-tenth mil. This system is somewhat slow but it has been tested with a trained crew and it works. When manual controls are installed, greater accuracy and speed will be obtained.

THE method recommended in adjusting fire is a combination of the old battery commander and forward observer methods. Since the weapon, in most cases, will be very close to the front lines, and to avoid having to employ the old conduct of fire techniques or require the use of the target grid, it is recommended that the observer be displaced from the gun by not more than one-tenth of the gun-target range. (*See Figure 3.*)

To determine initial data, the observer can use either of two methods:

(1) If the turret has been laid on north, the difference between north and the azimuth to the target will be the initial shift.

(2) If the tank azimuth method were used with the turret laid on a prominent object in the general direction of fire, the observer, with his field glasses, would measure the angle between the prominent point and the target. This angle would be the initial shift. Since the observer is displaced from the gun by not more than one-tenth of the gun-target range, the deviation in mils between burst and target, as measured with the field glasses, can be applied directly for any subsequent corrections.

The observer must estimate the range from the guns to the target. He should obtain the angle of site from the guns to the target by measurement, computation from a map, or by estimation. He announces the range and site in his initial fire commands. The cannoneer, who is setting elevation, converts the range to the corresponding firing table elevation (*Figure 4*) and adds the angle of site. For subsequent corrections the observer would send: ADD (DROP) (SO MANY) YARDS, the same as in normal adjustment of artillery fire. The cannoneer uses the c factor, multiplied by the range change desired in hundreds of yards, and changes the last elevation fired by that amount.

For the initial rounds and subsequent corrections a short burst should be fired using armor-piercing incendiary ammunition, so that the observer can locate the rounds in respect to the target. In fire for effect the unit should establish an SOP covering rate of fire and the amount of ammunition to be expended.

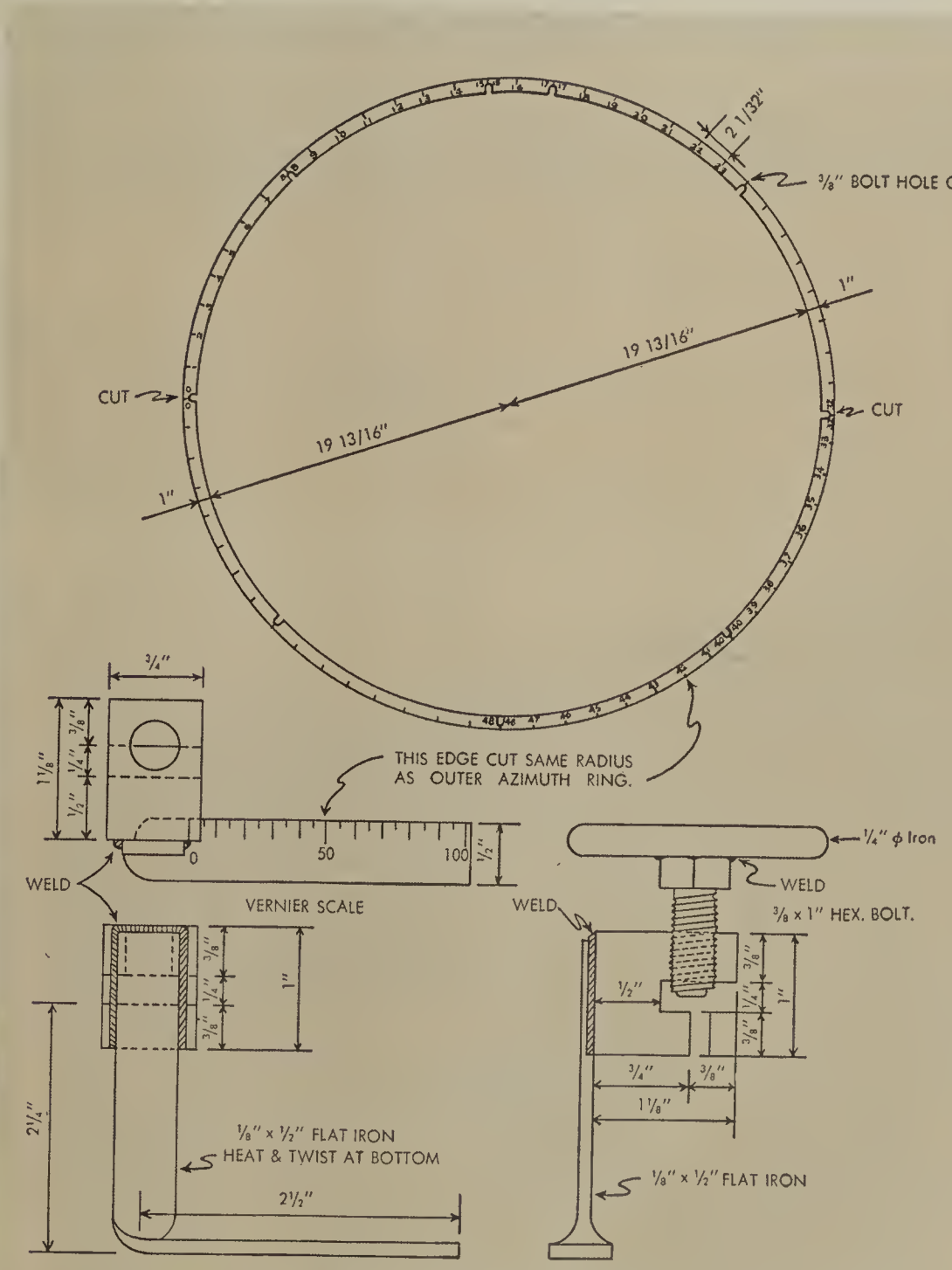
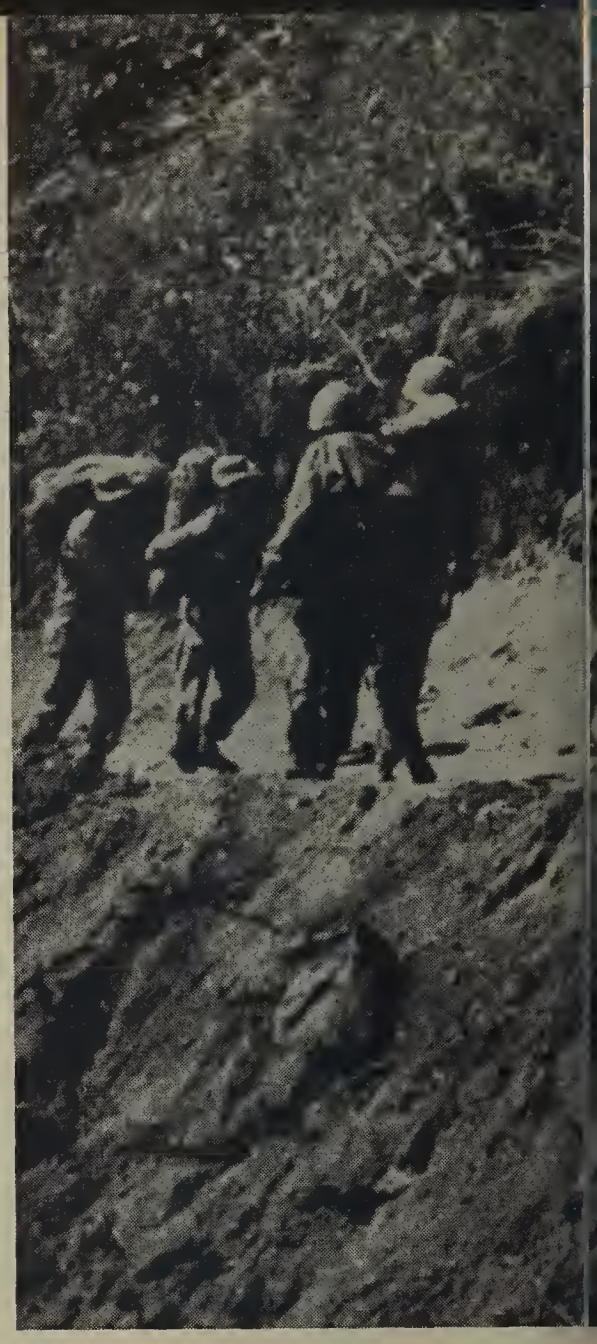


Figure 5. *Specifications for azimuth and vernier scales*

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The "new" war in Korea is a war of artillery and mortar fire. These are 2d Division infantrymen seeking protection from enemy mortar fire on "Old Baldy."



KOREA — THIRD PHASE

There is a "new" war in Korea, but there is also opportunity—if we have the vision to see, the wisdom to plan and act, and the patience to outlast the enemy

Jonathan Carmen

THE names that have long marked the line of battle—"Heartbreak Ridge," "Triangle Hill," "Sniper Ridge," "Iron Horse Mountain" and "The Hook"—remain in the news from Korea. And from the men who know these names the best comes the word that there is a "new" war in Korea.

If so, and the men in the command posts if not the lines themselves should know, this the *third* war there since 25 June 1950. The first was the heartsickening "yo-yo" war up and down South Korea and the inspiring victories following the Inchon landings, ending with the Chinese intervention. The second war continued through the restoration of the Eighth Army by General Ridgway and the holding of the present lines during the long, frustrating months of truce talks.

How long this new—this "third"—war will last and what its final result will be no one on either side of the lines can say. The decision to make war in Korea was Moscow's and the decision to stop it will be Moscow's too—if we accept the premise that the UN will stand fast in its determination to stop aggression everywhere by stopping it in Korea.

Of course if that determination became unstuck certain choices would be available.

Korea could be abandoned to the Communists and the ROK government left to its inevitable fate. Or the Communists' truce proposals could be accepted.

Either of these two courses of action would constitute defeat for the United Nations and almost surely the loss of all of Asia to the Communists.

United Nations forces in Korea could be substantially strengthened and an offensive mounted that would drive the Communists out of Korea. This would mean larger contributions of manpower by all of the participating nations, plus possibly Japanese and Chinese Nationalist forces. If we disregard the political difficulties involved in using either Japanese or Chinese Nationalist forces, there still remains the problem of equipping and arming them. Neither Japan nor Formosa is capable of supplying and equipping its forces in combat and this burden would fall on U.S. production facilities.

The war could be broadened through aerial bombardment of China and Manchuria or through a blockade of China and Manchuria.

There are obvious dangers in either or both of these courses of action. Danger not only that it might result in World War III but that it might involve us, as General Bradley once warned: "in the wrong war, in the wrong place, and at the wrong time."

A Hitler or a Stalin might start a larger conflict in order to extricate himself from a smaller one, but democracies are neither so power-blind, nor so egotistical. A world war may possibly erupt out of the Korean conflict (indeed the odds have favored that possibility ever since it began), but it will not come through the deliberate intent of the free world. "The advantages of successful war are doubtful; the disadvantages of unsuccessful war are certain," as General Bradley said at another time.

THUS we are still in the position we have been in for these many months. There can be no settlement in Korea until the Communists accept our truce talk proposals. We have gone as far as we can go with honor in seeking a truce. The decision for peace or prolonged conflict rests with the Communists. And now that they have started what the fighting men call a "third" war, it looks as though we are mere puppets jingling on the end of Communist strings.

But how does it appear to Stalin in Moscow and Mao in China? We must remember that Communists do not and

JONATHAN CARMEN is the pseudonym of a journalist who has had more than ten years of military service.



The trail up Triangle Hill is tough and dangerous and the road back is misery for the walking wounded and the men on the litters.

cannot look at things the way we do; they are ever captives of their own dogma. And so it may be that the "new" war in Korea was not deliberate choice, but Communist reaction to our—incredible to them—insistence on standing by our principles in the prisoner repatriation question, and to our evident ability to hold our lines in Korea while building a strong ROK Army. This last development must be viewed with some misgivings in the political and military headquarters of the enemy.

A powerful ROK Army, capable of manning the front lines, could be a great catastrophe for Communism in Asia. Such a development would cut off the large propaganda profits the Korean conflict has netted them among Asians. With the help of the Koreans the free world may be able to build a backfire of propaganda in Asia that could undo most enemy gains in that field. Certainly the Communists will say, as they have been saying, that we enslave the Koreans and force them to do our fighting. But with our help the Koreans themselves can refute that canard, if we and they are canny in planning and in executing our plans.

IT will be quite a while, to be sure, before the ROK Army is strong enough

South Koreans on White Horse Mountain get a respite from battle while their comrades from the Korean Service Corps pack ammunition up to them.



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A ROK, evacuated down White Horse Mountain by aid men, who first dressed his wounds, and tagged him.

to take over the lines. You don't build any army even in a single year's time, and the ROK Army poses especially difficult problems. Officers must be found from among a people who have little military tradition. Specialists must be trained from men who have small conception of how simple mechanical devices work. On top of these very real difficulties there is the fact that every weapon and every piece of equipment is furnished by our Army and must come from stocks that already have large demands on them—those of our own needs, the needs of other United Nations' forces in Korea, and the needs of the nations of Europe and other parts of the world who are arming with our help.

But word of what we are doing, how and why, can be spread over Asia. Let the ROKs speak out. Let them tell how their officers attend our service schools, of their training behind the lines, of the good food they get, the medical care. The whole story. Let the ROK government tell how, though wracked by war, it has the freedom to enact laws and follow programs that the United States does not necessarily approve. If all of these things are done by the Koreans, with our help, when the time comes that the ROK Army stands on its own, it will be standing for all Asians; standing as a witness that the free world will help lift up Asians.

IN any war there is the possibility of defeat. There is no guarantee that the stronger, the better prepared, the more strategically emplaced side will win. And so now, more than two years after the Korean conflict began, it must be apparent even to the Communists that though they have been calling the tune, they still have no assurance of victory.

They have their Communist dogma to reassure them: Capitalism contains the germs that will bring its own downfall; only the dictatorship of the proletariat can win. But we know that these are phony dogmas, completely false.

So on our side we have truth and righteousness. If we but lift up our eyes we can see that Korea is an opportunity —probably our sole remaining one—of freeing Asia and getting her on our side. But we must lift up our eyes, we must plan wisely, we must be stouthearted, and we must more than anything else, acquire some of that Oriental patience that can be so exasperating, but is so valuable in times like these.

THE new war in Korea is a war of artillery duels, with the Doughboys in the lines digging deeper and deeper into the Korean mountains. It resembles the trench warfare of 1914-18. That war was won because time proved to be on the side of the Allies. On whose side is time now?

It's on ours only if we use it wisely and not just in Korea, but all over the free world; use it to build economic, political and military strength.

Otherwise time will be on the side of the Communists. They have lost little in Korea—a few hordes of which they have many. And they have gained much —they have gained "face" in Asia by driving the forces of the United States and the other United Nations out of North Korea and holding them at bay for many months.

Time itself is neutral. It does not choose the side on which it fights. It is the instrument of those who will make it work for them. The strategic battle shapes up as a contest over which world —the enslaved or the free—will best use time and thus capture it as an ally.

We can win that struggle because we are free, flexible and generous. The Communists cannot because being slaves to a dogma, they must enslave others.



F-84 Thunderjets rise from a Korean base with the aid of JATO. The air war goes on in North Korean skies, from the Yalu to the Parallel.

Patton tanks ford a river on the central front, moving into position to add their fire to the rising tempo of battle all along the lines.





During
REPORTS AFTER ACTION
The supporting arms and services in Korea

THE 4.2-INCH MORTAR IN KOREA



Letters from the commander of a Chemical Mortar Battalion in Korea to the Chief of the Chemical Corps

Hq. 2d Cml. Mortar Bn
APO 301 c/ P.M.
San Francisco
13 November 1950

Dear General Bullene:

I wrote to Colonel Efnor [Lt. Col. Sam Efnor, Jr.] the other day and told him of the activities of the battalion and asked him to pass this information on to you. There is not much to add at present. We are now with U.S. troops on the offensive again, and the battalion is doing very well.

I have been promised some new mortars and when we get them the entire battalion will be in action. We have had a great deal of breakage of mortar parts—elevating screws and traverse nuts are the principal ones. Replacement parts that we brought from Edgewood Arsenal are nearly exhausted and there are no other 4.2-inch mortar parts in Korea.

I have not permitted fire over 4,000 yards. It has been extremely difficult to keep the mortars in range. There are no roads as we know them, only narrow cart trails barely passable (one way) by jeep—and then only in dry weather. These cart tracks are nearly always raised well above the surface of adjacent rice paddies. Once a vehicle is off the trail it is nearly always bogged down for good. Tremendous frontages assigned to infantry units require us to do a great deal of rapid movement so hand-carry is entirely out of the question.

Ammunition has been a terrific problem but so far we have never had less than 100 rounds per mortar on position. This requires great effort and much truck movement as supply lines are very long in point of hours of travel.

This is another in the series of after-action reports covering the work of supporting arms and services in Korea. These letters by Colonel Bell were furnished to the Chief of Military History by General Bullene and are published with the permission of both General Bullene and Colonel Bell. They have added interest at a time when the 4.2-inch mortars are being transferred from the Chemical Corps to the Infantry.

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I am operating a very small forward command post. I have with me the S3, the assistant S3, the S2, communication officer, and surgeon—together with 22 enlisted men. The rest of headquarters company, under Maj. [Merritt W.] Briggs, is about 20 miles to the rear where they can work in comparative calm and comfort. This has many advantages as the administrative personnel can settle down in one spot and stay there for a week or more while we move nearly every day. The small detachment up here can move quickly and does not clutter up congested trails. For security we tie-in to some nearby infantry battalion or regimental command post when we stop for the night.

If any other chemical units come over here they should bring additional tentage. We have very little and there is no shelter available. The few buildings are pre-empted by higher commands, leaving only open fields for people like us. It is bitter cold and, though the battalion has drawn special winter clothing, the men still suffer because there is no shelter. A couple of squad tents in each company rear would be worth their weight in gold.

I keep the company rear echelon near to me. This consists of their mess truck, supply truck and motor maintenance truck—with the personnel from these sections. The battalion sees to all supply of ammunition, rations and POL. We feed two hot meals and one C ration meal to the forward units. However, a few of us who are constantly on the move rarely have anything but C rations. The kitchen crews must be able to bake good bread for there are no bakeries over here.

Personal cleanliness is difficult as there are no laundries or shower points. The country is crawling with lice and fleas. I require frequent foot inspection as I am most fearful of trench foot.

We are fighting mostly against the Chinese now as the North Korean units are broken badly and fight principally as guerrillas. The Chinese are well equipped with small arms, automatic weapons, and mortars. The Chinese usually attack down draws and bottoms and in covering these approaches, our mortars have done their best work. The Chinese take terrific losses but they keep on coming. Our mortar men get into frequent small-arms fights.

We certainly need the new M30 mortar badly and have hopes of receiving it one of these days. If I had only one in each company it would be useful in reaching the 120mm mortar used by the Chinese. Their mortar has a range of 6,500 yards and they can sit back and plaster hell out of us while we are out of range. The best anti-mortar weapon is another mortar.

There is much more that I could tell but I have so little time. The morale of the battalion is very high and the men are full of fight, wishing to avenge our losses at Unsan. We do not really need anything here except 36 mortars and three or four more mortar battalions equipped with this new weapon.

Very Sincerely Yours,

E. V. H. Bell
Lt. Col., CmlC

16 December 1950

Dear General Bullene:

Following the withdrawal of all United Nations forces to the Chongchon River in November, the battalion was attached to the 5th Infantry, 24th Infantry Division, and rushed to Kunu-ri. The 24th Division was relieved by the 2d Division and we shifted to that outfit.

Since the withdrawal from Unsan, the battalion has been committed and shooting every day. We had Company C intact with all three platoons, and Company B with two platoons. Company A, having lost or destroyed all of its mortars and nearly all of its other equipment, was out of action.

Early in November as things were not too rosy, I sent our administrative section back to Sukchon. I reinforced Companies B and C with officers and men from Company A. Refitting Company A was a terrific task as we had to go all the way back to Pusan for the vehicles and most of the equipment. Efforts to have corps or army re-equip us were unsuccessful. Only aggressive and hard driving action on the part of Capt. [Clair L.] George, battalion S4, and his assistants got us our equipment. They went to Pusan, drew the trucks, loaded supplies, and then drove them more than 450 miles over the world's worst roads.

We were able to replace only half of our losses in vehicles and even less of the communications equipment. I completely reorganized the battalion while in the lines and redistributed personnel and equipment to have Companies A and B each with three platoons. We had Company A back and shooting just two weeks to the day after they were knocked out.

When the drive started about Thanksgiving, we were attached to the 9th Infantry Regiment, 2d Infantry Division. We had pushed northeast to a point a few miles north of the town of Kujang-dong when the Chinese hit us again. The 9th RCT was badly cut up as was part of the 38th RCT. Company C was overrun and initially we got only four jeeps, one officer and 24 enlisted men out of the mess. Later most of our personnel either drifted back or were located in clearing stations. I sent the survivors back to our rear which I had just moved to Kunu-ri. We kept Companies A and B in the fighting and it was hot.

The next day the Chinese hit again and the big retreat started. We pulled out with what was left of the 2d Battalion, 9th RCT, the last to leave. They had 274 officers and men and we loaded them on our vehicles. We retreated to Won-ni where we put up a road block which lasted just two hours. It was about 0330 when the infantry battalion commander reported to me that he had only 30 men left of the 274, so we all pulled back to Kunu-ri. We went into position there and the following night, at about 1900, received an order to pull out—saving what we could but destroying any equipment we could not get out. At the time we received our march order, we were firing at a range of 700 yards. We lost only one jeep trailer, which upset and was burned.

After a rough night, I gathered up the pieces and reformed the battalion. We were immediately attached to the British 27th Commonwealth Brigade, this making our fifth attachment in 25 days. That's enough, in itself, to drive a battalion commander stark mad.

We joined the British and have been with them ever since. I am happy with this attachment. These people know their business; they know heavy mortars.

We have been the covering force for IX Corps since early in the retreat and the battalion constitutes the light artillery

for the brigade. We have not yet been able to obtain any replacement of our equipment losses at Kujang-dong by legal means, but as we are the rear guard of a retreating army, we have picked up some gear. Our S4 with a party of 35 men is now in Pusan and I hope to see them back here tomorrow with enough equipment to place Company C back into action with two platoons.

We could not operate more than eight mortars per company no matter how much equipment we had, for our strength is down to 23 officers and 352 enlisted men. I have cut headquarters company down hard in order to get a hundred officers and men in each of the letter companies. But even to operate only eight mortars the "bread is sliced mighty thin" and most men have two jobs to do.

While I feel horrible over the loss of so many fine officers and men, it is a little comforting to know that we lost them while fighting, not while retreating. Company C, for example, knew that they were being swamped but they fired defensive fires at 600 yards and had only ten rounds left in the company when the last rush hit. They were able to destroy eleven of their twelve mortars. The Chinese got to the vehicles first, as usual.

Very Sincerely Yours,

E. V. H. Bell
Lt. Col., CmlC

31 December 1950

Dear General Bullene:

We are still attached to the British 27th Brigade and have 24 mortars in action with a total strength of 338 enlisted men and 23 officers. Of the 33 chemical officers who left Edgewood Arsenal with us, only 19 are still here. Of the fourteen who have left, five are missing in action, two are wounded in action, four hospitalized for non-combat causes, and three have been transferred. None of the four hospital cases will be returned within 90 days. This leaves us pretty shorthanded both for officers and enlisted men, but we are doing all right.

You will be interested to know that we have never been withdrawn for reorganization nor have we received any enlisted replacements. We have received four officers since we were committed. Unfortunately these officers knew nothing of mortars and damn little about combat troops. We lost one officer within three weeks, and it was a shame—like sending a lamb to slaughter.

I feel very strongly that if the Chemical Corps is to continue to have chemical mortar battalions, it should procure and train the correct type of combat officers for this duty. I would not give a tinker's damn if such an officer did not know one end of a test tube from another, but I would insist that he have a thorough knowledge of infantry organization, tactics, and weapons. I would not care about college degrees if the officers had the will to fight.

I also feel that chemical mortar battalions should not be sent to any theater as chemical mortar battalions unless the use of toxics is contemplated. The personnel may be sent as filler replacements or the mortar companies may be sent out as heavy mortar units but there just is no slot for a chemical battalion except where chemical munitions are to be used.

This present attachment is by far the best one that we have had. The 27th Brigade has no heavy mortars and we fill the gap between their own 3-inch mortars and the direct support artillery, thus bringing the brigade's fire power to nearly that of one of our regimental combat teams. We have an important slot to fill, but when we are attached to a U.S. division (and we have supported four of them), we are used only to reinforce the fires of their own heavy mortar companies. I have had to fight hard to keep our companies from being attached to the organic mortar companies. This is a waste of fire power, and worse still, a waste of manpower. A separate mortar battalion has no role in the present army organization except in the case of gas warfare.

We are in pretty good shape. Morale is high, and while the weather is bitter cold, our men are well equipped for it and can get along.

Very Sincerely Yours,

E. V. H. Bell
Lt. Col., CmlC

12 January 1951

Dear General Bullene:

We are still in support of the 27th Brigade. With them, we were the last troops out of Seoul.

I do hope that one more effort will be made to award our people the Combat Infantryman Badge. It seems to me to be rank discrimination to keep this badge from our men simply because of the word "chemical" in our unit designation. The men in the heavy mortar companies of infantry regiments serve the same piece, fire the same ammunition, and are subject to the same hazards as are the men of our battalion. Frequently in Korea, the infantry heavy mortar companies have been attached to my battalion for operational control. Of course, when this was done, the more dangerous assignments were given by me to our own companies.

It is common practice for us to operate jointly with the infantry heavy mortar companies' forward observers, fire direction centers, communications and ammunition resupply. Occasionally we perform the security missions for an infantry mortar platoon and once we manned their mortars for them. It is interesting that we are able to keep eight mortars per company in action with present-for-duty strengths averaging less than 80 enlisted men per company. The infantry companies usually run 120 to 155 enlisted men and only attempt to keep five or six mortars in action.

We are getting along all right in spite of personnel shortages and the bitter cold. We do not know what the Army has planned to do, but in spite of the long, hard and bitter retreat, morale is high.

We have very little left of headquarters company as I have transferred every possible man to the mortar companies. The personnel section and most of the motor section are kept well to the rear, while I operate the forward command post with three other officers and eighteen enlisted men. It is amazing how much can be done by so few people, but it is quite difficult and the strain is beginning to tell. I rotate both officers and enlisted men as much as possible. A couple of weeks eating and sleeping back in our rear echelon restores a man a great deal.

Very Sincerely Yours,

E. V. H. Bell

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Soldiers in Politics

The good they can do is great but the effect on the Army is questionable and can be harmful

THIS was written on the week end just before Election Day—and intentionally. Because, whether the General or the Governor is the President elect, when you read it, it should have no influence on what we say here about the effect on the Army (and other military services) of professional military men in party politics.

Actually, we could have written this even before the Chicago conventions of last July. Involvement of our professional soldiers in politics has been going on for a long, long time. Since 1776, in fact.

A few professional military men have entered the political life of the nation deliberately and we can hope with the highest motives. But others—and we are most concerned with these—have found themselves pinned with a political label because they acted or spoke as they believed their duty and position demanded—and always in the interests of the United States.

A half generation of war, uneasy peace and more war has been our recent lot. And as professional military men necessarily moved up into positions of great responsibility and trust, politicians have sought to enroll this or that General or Admiral in their party and put him up for high office. This was to be expected and we can assure ourselves that those who did consciously enter the political arena did so because they thought it their duty. One expression of this was General Eisenhower's declining President Truman's offer to get him the nomination of the Democrat Party in 1948, and his acceptance of the Republican nomination in 1952. Only a man with firm convictions would resist one nomination and accept another. But such high motives do not still the politicians of the opposition. And so their talk of the "evils of militarism," and their derisive hoots about how the professional soldier lives apart from the main stream of American life, does the Army no particular good.

These are little more than irritants that might at least make the Army aware of how some of its cherished forms are viewed by civilians. But unfortunately, the politicians don't stop there. And in justice to them we should say they probably can't A political leader who doesn't throw everything he can at what he considers the opposition's weaknesses may be less than loyal to his party and the country. It isn't pretty, but it is our way and we seem to thrive on it.

Unfortunately, when one of the candidates is a professional soldier his prior professional acts become political issues. Thus the Korean issue involved, willy-nilly, the question of what General Eisenhower had or had not recommended when he was a member of the JCS.

We could argue—as we believe—that a professional soldier should not be answerable for his deliberate official decisions, but we could not argue successfully that a President could not open these decisions to public debate. Such debate should refrain from considering the motives of individual members of the JCS, but no one could believe that it would when one of the members was a candidate for political office.

As a result the act of General Eisenhower became a political question. Other professional military men were also dragged into the matter by both parties.

The greater danger lies here—in the area beyond the professional soldier who seeks high office. If JCS decisions are to be publicly debated and the motives of individual members of the JCS questioned, is it not possible that future decisions of the JCS might not be made solely on military merits? If a member of the JCS reaches a point where he can hardly help keeping one eye on the political aspects of decisions in the effort to provide all-around protection for his professional future, the value of his service becomes impaired and the military security of his country is weakened.

BUT there is still another evil and this aspect is possibly the most pernicious of all. Almost two years ago Senator Taft said publicly that he no longer had any confidence in the Joint Chiefs of Staff. What he clearly meant was that he considered the JCS a tool of the Administration.

This meant, in Mr. Taft's opinion at least, that General Bradley was a general of the Democrat Party. And yet, so far as we know, General Bradley has never in his military life uttered a word that would show political leanings.

A few months later the long and risky MacArthur Hearings had the Washington stage and whatever benefit the American public got from that production was more than offset by the political paint job it applied to every military man who testified.

HALF of the federal budget in these troubled years is spent by and for the military services. The funds are voted by Congress on the recommendation of a small minority of the membership which holds lengthy hearings at which the military budgets are dissected and explained by military men and civilians of the military establishment. It is impossible for any one congressman or senator, or even a group of congressmen or senators, to be expert on every facet of the defense budget. And so they must accept the explanations of the witnesses—and anyone who knows much about these things, knows that the testimony of the experienced soldier wearing stars is most persuasive of all. It is quite possible that of all the great services General George C. Marshall has rendered his country, his greatest was his ability to appear before congressional committees and patiently explain the facts of military survival to congressmen. Had he appeared as a political figure rather than a professional soldier above and beyond politics, he would have failed.

Politicians will play politics. That is their business and their way of life. And so they will play politics with soldiers, even with soldiers who have no desire to enter into political frays. And that being so, the time may come (and we fear it may be on us) when a politician will vote, not for this or that appropriation because he trusts the soldier (or sailor or airman) who advocates it, but because this or that soldier has been labelled as a member of his own party. God help us if politicians ever vote for funds for Unified Command Blue because General A who commands it is reportedly sympathetic to their party. Or vote against funds for Unified Command Green because its commander, Admiral B, is supposed to belong to the opposition party.

WE can offer no solution. Soldiers cannot run away and hide from the wiles of beckoning politicians. General Sherman tried that once by moving the headquarters of the Army to St. Louis. It didn't work for he found that the true headquarters of the Army is where reason, if not the Constitution, put it: in the offices of the War Department.

We can offer the hope that the people, who seem to have a deeper conviction than the politicians, that the role of the soldier should be above and beyond the maelstrom of partisan politics, will insist that the politicians quit trying to infect soldiers with political germs.

The soldier himself should recognize that the step into politics is usually not a conscious one and that it creeps up upon men of ability and a strong sense of duty when they are in positions of great power. The good a high-minded soldier can do in politics is great, but the possible baleful influence on the Army could more than offset it.



When stalwart men man a patrol base forward of the MLR

THE PERIMETER PAYS OFF

Lt. Col. C. C. DeReus

IN the late summer and early fall of 1951 in Korea, the expert organizers of a perimeter defense became masters of the situation. Wide frontages, terrain, and a scarcity of infantrymen gave them their opportunity.

Patrols that went deep into enemy territory and at maximum medium artillery ranges were the principal activity. To the expert at the time-and-space calculations, such deep forays into enemy territory were physically impossible unless the patrols were large, self-sustaining units operating on missions of twenty-four hours' duration or longer. These patrols operated out of *patrol bases,* and actually started from what might well be considered enemy territory.

Units ranging in size from reinforced platoons to battalion combat teams were placed on key terrain four to five thousand yards forward of front-line positions to maintain contact with the enemy, provide bases from which to patrol to determine enemy dispositions, and capture prisoners. These isolated positions were choice targets for mass night attacks by the Chinese and North Korean Communist forces. A quick glance at the situation map in any front-line regiment indicated at first glance that the commander had lost his mind. His reserve, or a great portion of it, had been positioned on the wrong side of the main line of resistance.

LIEUTENANT COLONEL C. C. DEREUS, Infantry, entered the Army in 1941, was commissioned in 1942 and integrated into the Regular Army in 1945.

TO best portray the finer points of establishing and operating a patrol base, an actual experience of the 3d Battalion, 7th Infantry, 3d Infantry Division, is detailed here. This battalion was the reserve battalion of the regiment. It had a threefold mission: It was to prepare a regimental reserve line, prepare and rehearse counterattack plans, and establish and maintain a company-sized patrol base some five thousand yards forward of the MLR. To avoid digression we shall discuss only the patrol base part of the battalion mission.

The position selected upon which to establish this patrol base was a small hill rising some 200 meters above the Chorwon-Pyongyang plain. Overlooking it from the northwest was a towering mountain ridge line strongly held by the CCF. This small knob, hereafter called Hill 284, was not more than 500 yards in diameter and was absolutely without cover. From it, patrols were to range to the north and west to locate CCF positions and to determine routes of advance for both infantry and armor. Secrecy and surprise were two principles that were to be sacrificed in organization of the position. Any movement on the position could be observed for miles. The main consideration was to get on the position early in the day and prepare quickly for action that was certain to come at night.

Company I was selected to organize the position and occupy it for four days. The first two days were to be spent in digging in and preparing the position for a determined defense before extensive patrolling would commence. Close-in villages were to be screened by patrols daily. Company K was sent on a wide enveloping sweep simultaneously to clear the area and to provide added labor necessary to accomplish organization of the position in the daylight hours. The pioneer and ammunition platoon were to join at the objective area with wire, pickets, flares, napalm drums, and tools. Movement to the position was made without contact, and work on the position proceeded ahead of schedule. By nightfall one band of double-apron wire was put in place, trip flares were installed and armed, fires were registered, and extra ammunition was stored on position. Although the organization was

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not completed, it was adequate to cope with probing attacks that normally preceded an all-out attack by the CCF.

During the night, an enemy patrol scouted the positions and threw grenades into the perimeter in an attempt to draw automatic-weapons fire. One grenade landed in a position too close to the wire and two occupants were killed. Work continued at a feverish pitch the next day. Overhead cover was completed, another band of wire added, additional trip flares installed and additional fires were registered. The unit was out of range of 81mm or 4.2-inch mortars positioned behind friendly lines, but had attached to it a section each of the machine gun and recoilless rifle platoons from the heavy weapons company. All companies in the battalion had available twice the number of automatic weapons authorized and employed them while on defense. During the first two days patrols were sent to the north and west. One minor patrol probe by the enemy was repulsed each night. The balance of the battalion rehearsed an extrication plan *(Figure 1)*, designed to relieve, during daylight, a unit on the patrol base that might be under heavy pressure. This extrication force consisted of the balance of the battalion with Company B, 64th Tank Battalion, attached.

ON the following day Company I was relieved by Company L and weapons attachments were rotated. This was a daylight relief accomplished at first light to allow the new company to have a full day in which to become acquainted with the position and to register fires.

Company L conducted only limited patrols during that day and spent the time re-registering fires *(Figure 2)*, altering positions and studying the terrain surrounding it in conjunction with patrol plans for the next day. Added communication facilities were installed. A report from the company commander just before darkness indicated the isolated unit was prepared for whatever might come that night.

To portray events as they took place, journal entries from the operations journal, 3d Battalion, 7th Infantry, and a synopsis of detailed prisoner interrogation reports (in italics) are presented. These are placed in chronological order and the journal entries are as terse as they were entered.

At about 1900 hours, some 7,000 meters to the northwest, the Chief of Staff, 125th CCF Division arrived at the command post of the 3d Battalion, 275th Regiment. This unit had just finished eating and was in a reserve defensive position, some



Figure 1. The planned extrication operation.

three hours march to the northwest of the UN patrol base. The Chief of Staff gathered the men of the battalion together and informed them that they would attack the UN Forces that night. They were to be careful, avoid capture, avoid excessive casualties, and overrun and capture the forces holding the position. Reports of previous patrols were given to the Officers. After the briefing the 7th, 8th, and 9th Companies were each assigned 24 men from the 10th [Heavy Weapons] Company. Sixteen of these men manned heavy machine guns and others were antitank men armed with 57mm recoilless rifles. All men were issued one day's combat ration of sorghum and rice and at least one company was issued eight bangalore torpedoes and nine satchel charges—more than 60 pounds of explosives. Each rifleman was issued 100 rounds of small arms ammunition and six grenades. After being supplied, the attacking force dog trotted for about two hours, arriving at an assembly area about 3,000 meters northwest of the UN position. Here the battalion was joined by two companies of the 126th CCF Division. This was an ambush force designated to establish positions astride the probable withdrawal routes of the UN Forces. After these two companies had moved forward, the 7th, 8th, and 9th Companies followed in column to an attack position.

2345—I, K, L, M Cos: Negative report.

The enemy attacking force was moving to its assembly area.

0045—L Co: Trip flare reported at 3 o'clock (reports of direction were given using the clock system with north at 12 o'clock).

0050—L Co: Enemy patrols at 9 o'clock and 6 o'clock had thrown grenades into the perimeter. A grenade exchange followed.

As the 7th and 8th Companies moved into attack position, CCF scouts moved forward up the hill cutting trip flare wires and locating the barbed wire.

0057—L Co: Telephone communications broken.

Scouts of the 8th Company had discovered the telephone wires leading to the position and had cut them.

0100—L Co: Negative (by radio).

0240—L Co: Receiving heavy small arms, machine gun and mortar fire. Artillery being placed on concentrations 198, 197, and 199. Heavy 60mm mortar being placed on attacking enemy.

The 7th and 8th Companies attacked to the west and northwest under cover of supporting machine gun and mortar fire. Heavy artillery fire destroyed one machine gun and one mortar just as the attack started.

0320—L Co: Request artillery illumination immediately. Urgent.

Demolition personnel of the 8th Company succeeded in blowing a hole in the outer band of wire although they were killed before a gap could be blown in the second band.

0335—L Co: Estimate enemy battalion. Visibility bad due to enemy's use of smoke. Request all available illumination.

Both the 7th and 8th Companies were employing smoke pots and smoke grenades to cover movement. UN Forces had placed trip flares throughout the area and their illumination made it difficult to move. The 7th Company had taken extremely heavy losses from mortar and artillery fire while the losses from the 8th Company were principally from machine gun and small arms fire.

0340—L Co: Request illumination of all types. M49 flares are being used as grenades to provide additional light. Artillery illumination is exceptionally good but need more.

Heavy artillery fire had destroyed all the mortars and the 57mm recoilless rifle and had forced the machine guns supporting the 7th Company to displace. The battalion commander and the commander of the 8th Company were killed by mortar and artillery fire.

0350—L Co: Two yellow flares fired by enemy at 3 o'clock. Enemy breaking contact. Continue all illumination.

Searchlights have been swung into the sector with direct illumination.

0410—L Co: Enemy appears to be reorganizing.

Heavy losses in the 7th and 8th Companies prevented the attack from being successful. Losses in the two companies were over 60 per cent and both company commanders, the battalion commander and both company political officers had been killed in the attack. The battalion political officer issued the order to withdraw and ordered the 9th Company to prepare to attack the position along with the remaining men of the 7th and 8th Companies.

0415—Bn Commander to CO Cos I, K, M, and Co B, 64th Tk Bn: Prepare to move on order to execute Plan BAKER. This was the preplanned extrication operation. It had been prepared in detail, rehearsed and the fire plan was familiar to all who were to participate.

0420—L Co: Enemy moving in on position from the east. Request maximum illumination. Artillery firing concentrations 197, 198.

Elements of the 7th and 8th Companies were directed to attack from the east while the 9th Company moved into position to attack from the north.

0435—L Co: Under heavy attack from north, east and southeast. Placing all

available fire on these positions. Wire blown at 1 o'clock. Red flare appears to be enemy signal to attack.

0437—Bn Commander to CO Cos I, K, M, and B Co, 64th Tk Bn: Move to assembly area CHARLIE. Cross line of departure at 0530.

0500—CO Co L to CO 3d Bn: Enemy using smoke again. Estimate enemy battalion attacking. Some enemy through the wire at a point near 1 o'clock. Continue all available illumination. Friendly casualties light so far. One LMG and one 57mm recoilless rifle knocked out. Have artillery place all fires they can on concentrations 197, 198, and 196. Illumination concentration 503 is very good.

0510—L Co: Bugles blowing at 2 o'clock. Red flare fired. Enemy apparently launching assault.

0520—CO 3d Bn to all unit commanders: Plan BAKER. Cross line of departure at 0530. I Co and B Co 64th Tk Bn to move as fast as possible to get in behind the enemy force.

The 7th and 8th Companies reached the breached wire and some of the men got through the wire but were killed by an automatic weapon near the gap. The 9th Company was suffering very heavy casualties from artillery, mortar and hand grenades. CO 9th Company killed by hand grenade. Men of the 9th Company overran one machine gun position but the gun would not fire. All of these men but one were killed by hand grenades.

0533—3d Bn to CO 7th Inf: Elements of Plan BAKER crossed LD at 0530.

0538—Co L: Estimate 30 enemy inside wire from 1 to 3 o'clock. One squad being shifted from 8 o'clock to help hold position.

About 20 men from the 9th Company rushed through the gap in the wire and assaulted the high ground. UN soldiers killed two with shovels and three with bayonets. The others tried to withdraw but could not find the gap in the wire. Most of them were killed with hand grenades.

0545—Co L: Whistles and bugles blowing at 2 o'clock. Two red and one green flare fired. Enemy appears to be withdrawing. 1st Sgt. Bowman killed. Are placing all available fires on enemy.

Orders to withdraw were issued by someone. The signal was a red, green, red flare combination. The assembly area was under extremely heavy artillery and mortar fire and someone told the remaining soldiers to run to the northwest for 2,000 yards. Casualties were told to walk out or they couldn't be taken out.

0550—Co L: Can see elements of I Co and tanks to the north of us. [It was now dawn and visibility was about 800 yards.] Send helicopter to evacuate casualties. Have three seriously wounded.

0620—CO 3d Bn to CO 7th Inf: Units of Plan BAKER now linked with L Co. Mopping up. Request helicopter be expedited. L Co's casualties light. CO L Co estimates 150 enemy killed. He has 9 PWs.

Reorganization was started immediately and search of the area surrounding the position of Company L for wounded, dead and prisoners by the extrication force continued. A supply train was organized to resupply L Company's ammunition which was almost gone. At 0730 the extrication force was directed to return to the battalion assembly behind friendly lines, minus Company K. K Company was directed to start immediate preparation of another patrol base position 2,000 yards to the south of the base on Hill 255. L Company was directed to hold its position until dark, then withdraw to an assembly area behind friendly lines. L Company was to prepare booby traps within its position and on its perimeter. Wire was to be repaired, overhead cover increased and every effort made to create an appearance of continued occupancy. A hot meal was to be served at the position as soon as possible.

BASED upon actual count, Company L had killed 162 enemy in and around its position. Of these, 36 were counted inside the barbed wire. Interrogation of prisoners gave reason to estimate that an additional 110 had been killed and 150 wounded. Friendly casualties were four killed and twelve wounded and only three of the wounded were serious. A total of 78 foreign weapons of various makes were captured and 121 American weapons recovered. These weapons ranged from heavy machine guns to rifles.

Although courage and determination were decisive elements in the successful conduct of this defensive action, other factors were instrumental in providing the over-all success of Company L. The most important factor was the complete understanding of all men concerned of their mission, why they were so positioned, what to expect, and what action was expected of them. This had been accomplished through a detailed briefing of the men as directed by the battalion commander and accomplished by the company commander. This was of added importance since within Company L, 76

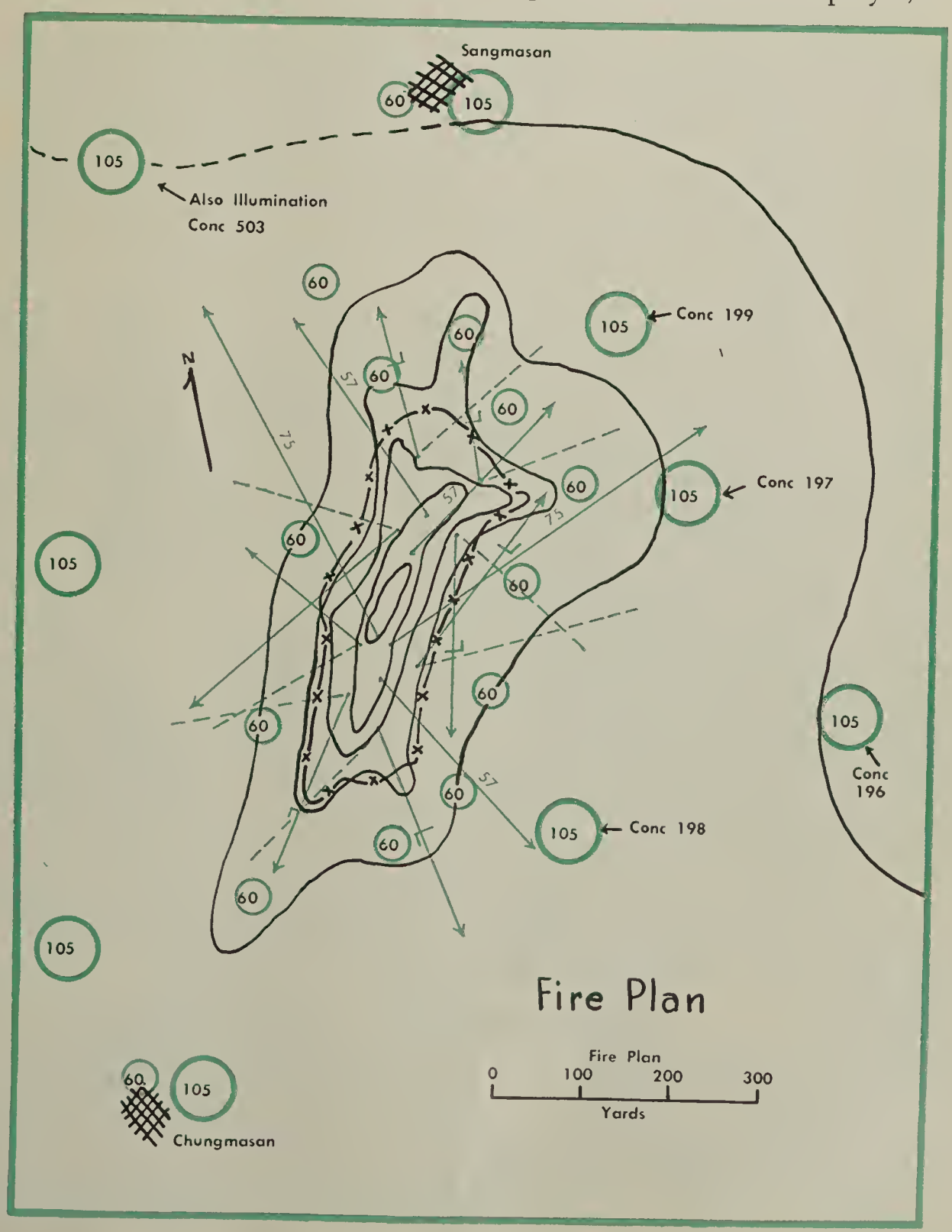


Figure 2. The fire plan.

men—approximately 40 per cent of the entire unit—were new men under enemy fire for the first time. They were told that they were expected to remain in position and fight throughout the night if attacked. No withdrawal would be made in darkness under any circumstances. If the unit was under heavy pressure, an extrication force would relieve that pressure at daylight. Knowledge of these points gave the men a reason to fight determinedly.

Long hours of hard work preparing the position paid off in dividends of enemy killed and a minimum of friendly casualties. Two bands of double-apron barbed wire were considered a minimum, and three bands had been completed astride the more critical avenues of approach. Three belts of trip flares were placed beyond the barbed wire to provide early warning and additional illumination. Antipersonnel mines were not used because of the necessity for constant movement of friendly forces in and out of the perimeter area. Overhead cover less than two feet in thickness was considered unsatisfactory. Communication trenches had been prepared connecting all positions within the area. Alternate positions for crew-served weapons were prepared with communication trenches leading to them from the primary positions. Last, but by no means least, was the dumping, *on position,* of adequate amounts of all types of ammunition. To indicate the amounts, each machine gun, light or heavy, was supplied with a minimum of 30 boxes of ammunition, each 60mm mortar had 400 rounds of high explosive plus 20 rounds of illuminating ammunition. Each individual soldier had 8 hand grenades and 6 bandoleers of caliber .30 ammunition. All ammunition was dug in close to the weapons position or near the fighting holes of the riflemen. In a prepared position such as this, there need not be any excuse for running out of ammunition during the course of a single night.

OF the major points of organization of the position, the preparation and constant improvement of the fire plan are the most important. All weapons must have a specific point or area to cover. The rifleman, with his M1, must be given a sector of fire, sectors or final protective lines, if available, must be assigned to the machine guns and the automatic rifles, and concentrations must be assigned to all indirect fire weapons and these concentrations must be registered. These pre-planned fires must be woven together to give a protective screen. In a perimeter defense, these fires must be extended completely around the position. The initial planning of these fires and their first registration is not enough. A fire plan must be constantly studied for ways to improve it. All men must be told what concentration (by number) is in front of them and from what type weapon. Concentrations that were placed around this strong point were registered daily, preferably just before dark. Indirect fire concentrations that were initially in rice paddies were shifted to other locations since the effects of high-explosive ammunition were somewhat nullified by the water and mud in these paddies. A fire plan cannot be indiscriminately prepared. It must be built around possible enemy courses of action. An analysis must be made of all possible routes of approach and the fire plan must be flexible enough to cover any one or several of the routes.

Many other factors were involved and helped make the action successful. Some of these were communications, capable leaders, and esprit. I believe however, that without a man with the *will to fight,* a *position* that he can fight from, and *supplies* to fight with, and a *complete plan* of how he is to fight, the other points are useless.



In training they worked hard to be soldiers and in combat they earned the right to "belong." Looking back, I say

My Roks Were Good

Lieutenant Lindsey P. Henderson

NOT long after I joined Company L, 21st Infantry, 24th Division, in September 1950 I was given command of the 5th or "Gimlet" platoon, as the attached Republic of Korea troops were called in the 21st. The platoon consisted of 22 Koreans who had been with the company a short while, and 20 untrained Koreans who had joined us the night before I took over the platoon. My company commander, Lieut. Planter Wilson, gave me M/Sgt. Lester Studebaker and Sgt. Leon Wilson for assistants.

When I first inspected my platoon it was easy enough to tell who the old combat men were. I can't explain it exactly, but there is something about a combat man that you can feel.

After the inspection the two sergeants and I got to work. The sergeants told me who the new men were and their opinions of the old men. We then reorganized the platoon.

Two of the men, Ryang Hyong Jin and Lee Han Tok, had had officer's training. Ryang had been in the Army and Lee in the police force. I appointed them first and second lieutenants, respectively. Hong Chang Ki had been a district school superintendent. He was made first sergeant. Sergeant Wilson told me that Kim Hong Kwan, Kang Si Toe, Kim Ju Tong and An Nak Chan were the roughest, toughest, most fearless of the combat men, and were looked up to by the others. I appointed them sergeants first class and made them squad leaders.

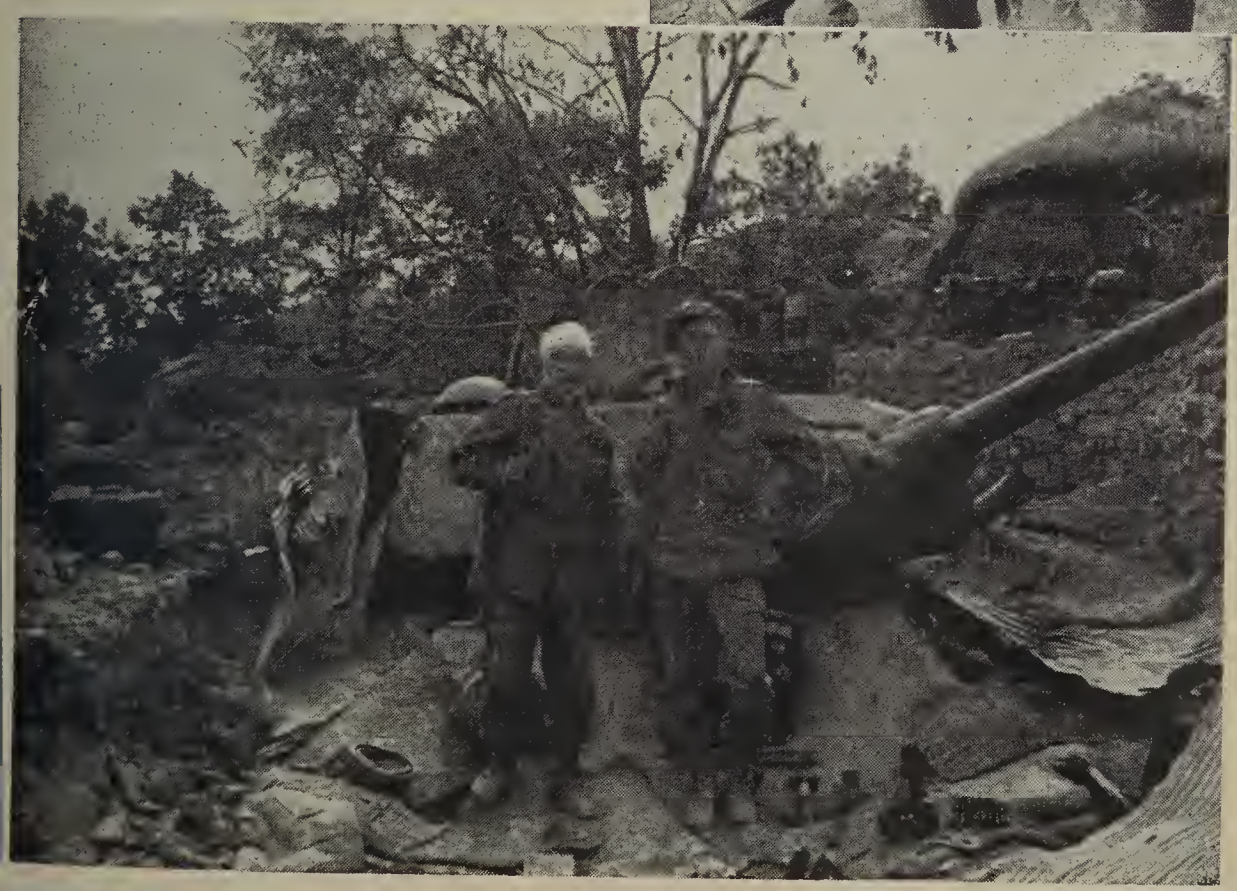
As soon as the platoon was reorganized I called a meeting of my key men and told them what I intended to do and why.

First of all, I had to be sure that they felt like they "belonged," even though they were Koreans in an American outfit. Then I had to be sure that they understood what we were to do and that they had to earn the right to "belong."

Our job, I told them, was to point the



Shortly after the crossing of the Naktong in September 1950, these four members of the "Gimlet" platoon were snapped by their platoon leader. The man hidden behind helmet and moustache is Master Sergeant Lester Studebaker, the platoon sergeant. Next is Sergeant First Class Leon Wilson, then Kim, the radio operator, and finally Yum, the platoon interpreter.



One of the tanks destroyed by the platoon on 23 September was photographed three days later. The bandaged man is Corporal Cho Byung Je who had attacked one of the enemy tanks with grenades. Lieutenant Henderson stands beside him.

LIEUTENANT LINDSEY P. HENDERSON, Infantry, served as platoon leader in the 21st Infantry, 24th Division, in Korea. He told another story about his Republic of Korea soldiers in the September 1951 issue of this magazine.

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attacks, do most of the extended patrolling and man listening posts. We were fighting in Korea and they knew the terrain and understood the language.

I told them that they would be responsible for the training and discipline of the men.

Oriental justice and discipline is foreign to the American way of thinking and doing things. It is forceful, swift and sometimes brutal, but it is what they expect, understand and respect. But I did not let my American noncoms use it for two reasons: our repugnance for brutality of any kind, and "face." It wouldn't do to have an Occidental strike an Oriental. There are those who would condemn an American officer who turned his head from native brutality but here I stand on the end results. My platoon gave me complete faith, devotion and loyalty.

Sergeant Studebaker, Sergeant Wilson and I supervised and made corrections where necessary. We spent every minute we could find on teaching the care and cleaning of weapons and tactical training. Hand-and-arm signals were thoroughly taught—and learned. Signals were a universal language and, in combat, would eliminate any confusion that might result from the loss or lack of an interpreter and the breakdown of communications. I made it clear that with few exceptions a man only makes one mistake in combat. Whenever we came off the line, if mistakes had occurred, we would double the training to iron out the bugs. The more training we had, the less likely we were to be killed.

THE Gimlet platoon had forty-six warm bodies, including mine, and I hoped that in combat they would all be hot. In mock attack, the Gimlets looked and sounded ferocious. They were developing as a team, and the hand-and-arm signals seemed to be working. I wanted to work more with each squad and develop my fire teams to a fine point, but there wasn't time. The few days we had were much too short. I needed two more U.S. noncoms. With one for each 10-man squad I could exercise closer control. I was lucky in Sergeant Studebaker. He had been first sergeant of an outfit in the rear, but wanted action. He jokingly said he had been sent forward to be killed. He asked for it often enough, but he was a superior soldier, an old hand at combat and knew his business. Sergeant Wilson was young, sometimes rash and headstrong, but all guts; he knew his business too. He had been in combat since the first day in Korea, one of the few original men who survived and remained with his company.

After a few weeks I did get two more noncoms. Sergeant Todd and Corporals Weber and Rounds each had something that we needed in the platoon. Due to the nature of our missions we were assigned an aid man. Good medics lift morale.

There has been much talk of AWOL, but the men of Company L reversed the procedure, they went AWOL *to* the unit. Officers and men who were lightly wounded in action were constantly skipping channels and leaving the hospitals as soon as they thought they were ready to return to the company. They knew they were needed. My Gimlets were no exception. As soon as they could walk, they left the hospitals and started looking for the company.

ONE day my ROKs were paid. Not much, to be sure, but it made them happy. Then a delegation, representing each squad, visited me. They wanted to contribute their pay to their own Government; it was enough that the U.S. Army fed, clothed and armed them. Deeply moved, I accepted their money and, through channels, sent it to the Minister of Defense of the Republic of Korea. Sometime later an acknowledging letter came back. In it the Minister spoke of his gratitude to his fellow citizens in the platoon and of his happiness that American and Republic of Korea soldiers "could fight for the common cause of humanity."

But I've gotten ahead of myself.

On 16 September we pushed back to the Naktong River and took up positions about five miles south of Waegwan. On 18 September we crossed the Naktong in assault boats under a murderous fire. We took the high ground on the enemy side of the river and the half-green platoon acquitted itself admirably. From that point on, we were on the upgrade.

At about 1630 hours 21 September 1950, Company L was pointing the advance of the regiment on the Waegwan-Kumchon road. When elements of the company were well within a town which was the headquarters for one of the crack Red tank divisions, tanks and automatic weapons opened up with heavy fire on us. The enemy fire was so strong our forces were ordered to withdraw. The artillery wasn't up yet, but the Old Man called for an air strike which was on the way. Sergeant Wilson had a patrol with a bazooka team on the left flank in town and I had one on the right flank. When the withdrawal was ordered, I got the word OK, but Wilson couldn't be reached. As soon as I got back and heard about it, I took two men and went looking for him. Private First Class Charles Mersing, a volunteer, was my bazooka man and Corporal Yu Ok Sang, my runner. We had only one 3.5-inch round when we entered the town.

Sounds of a hell of a big fire fight broke through the general din of the battle. We headed in that direction, dodging Reds when we could, killing them when we couldn't. We found Wilson and his patrol engaging two T-34 tanks. As I looked over the situation, I saw Corporal Cho Byung Je running toward one of the tanks. He was evidently trying to get aboard. At that moment a Red stood up in the turret with a burp gun. He threw a burst at Cho and I saw Cho's helmet fly off as he fell to the ground, his face covered with blood. He struggled to his feet and wiped the blood from his eyes with his left arm as he pulled the pin from a grenade with his teeth and threw it at the gunner's turret which was still open. It was a perfect shot which exploded just inside, blowing pieces of the Reds out of the tank. Cho collapsed.

Another T-34 came up to join the show but we were out of bazooka ammo. In broken Japanese and Korean I asked Yu to try and make it back for more ammo. We had a beautiful position for that other tank and the gooks didn't know where we were. Yu stripped down for the run, as I wrote a note asking for more ammo and to have a litter jeep ready for protection. He was scared, but he was all guts. As he slipped away I wondered if I'd ever see him again. The air strike was on and if the Reds didn't get him, one of our planes might.

Meantime, Sergeant Wilson had spotted us and worked around and through the Reds to our position. We waited awhile for the ammo, but as Cho had lost a lot of blood and had what looked like a serious head wound, I decided to withdraw to our lines. We had to stop and fight once or twice and during one of these breaks, Yu reappeared with a note. He had successfully infiltrated the enemy lines three times that afternoon. I'll never forget it.

"No more ammo. Find Sergeant Wilson and return immediately. We're leaving town."

All the way back, Cho had refused to be carried. The stamina of those ROKs is terrific, to say nothing of their guts. And believe me, it takes guts to throw grenades at tanks, and to take off into a swarm of Red fanatics with only a knife for protection.

It was at this point, I believe, that

whatever doubt there may have been about my Gimlets completely disappeared. My ROKs were good. But as time went on they became better. Being a 5th Platoon gave us a unique slot in the TO&E of the rifle company and gave me the opportunity to mold and develop them into a highly specialized raider-type unit that could do and did do almost anything. With the highly skilled American noncoms I had for my staff functioning like a group of G3 inspectors at every break from actual combat, the individual ROKs were sharpened into first-class fighting men. Fire teams and squads soon developed into unbeatable combat teams.

Probably the biggest problem I had was teaching defensive tactics. Making my Gimlets understand that in the attack, on patrol, setting an ambush, no matter what the immediate mission might be, every time we halted we were on the defensive and must take security measures, wasn't easy. When they learned that lesson, their effectiveness as raiders was greatly increased. Whether at squad or platoon level, I found that "simple and direct plans, promptly, boldly and thoroughly executed, are usually decisive."

Some outfits in Korea didn't get much use out of their ROKs. Some of them tried the "Buddy system," sometimes successfully, but most outfits generally used them as ammo bearers. The trouble, it seems to me, is that the average American soldier lacks the *patience* of the Oriental. This lack of patience, the language barrier (which in itself was an almost insurmountable obstacle) and the apparent lack of advance briefing on, and understanding of the ROK soldier, created real difficulties. Then there was the sour hangover from the first days of the war when the partially trained, inadequately armed and poorly led ROKs almost completely disintegrated in the face of the enemy. Units of well-led ROKs that fought well were forgotten. We solved the problem in Company L just by facing up to it. You have to recognize that some American soldiers will always take advantage of a "not so bright" buddy, no matter what his race, color or creed. Because they didn't understand the ROK, some American GIs used him as a pack horse. It's no wonder that these men lacked spirit.

ONCE one of my patrols picked up a scared, sick, war-weary young Red. We fed him and kept him until we had bagged a few more to make it worth while to send an escort back to the battalion POW compound. When he found that he wasn't going to be killed or mistreated, he told us that about twenty-five of his friends wanted to surrender but were almost as afraid of their leaders as they were of us. I took a chance on him. I wrote out a safe-conduct pass in case he should tangle with one of our patrols, and at dusk let him slip through our lines. It paid off. The next morning he returned with twenty-six of his friends. We fed them and sent them back to battalion S2. This side venture, we figured, had saved a lot of ammo and maybe a few lives.

It took a great deal of self discipline for my ROKs to take prisoners at all. They had found their towns and villages laid waste and their families gone, many never to return. Every one of my Gimlets had at least one close member of his family to revenge. Some had lost their families; like Lieutenant Ryang Hyong Jin. Although his home was at Kaesong, his family had been living in Seoul, and when we went into the assembly area a few miles north of Seoul, I let Ryang go home. He returned the next morning and reported in to me. He told me that friends told him that his mother, father and brother had been executed by the North Koreans, and his two sisters had been added to a Red brothel and were taken north when the Reds withdrew.

Ryang requested permission to take over the training for the rest of the morning. Knowing that work would occupy his mind, I said OK. He saluted and with cold hatred in his voice said, "The communist dogs will pay, Lieutenant Dixie; they will pay dearly."

Just before Thanksgiving of 1950, we got orders to advance into forward assembly areas. My ROKs were jubilant —primed for a fight.

"This is going to be a reconnaissance in force," our company commander told his platoon leaders. "The whole front is moving forward on line. It's going to be a slow process. We will advance from seven to ten miles a day, dig in and send out patrols to probe for the enemy. If the patrols don't make contact, the front will move forward to the next phase line and the process will be repeated until the enemy is contacted or we reach the Yalu."

He continued with the briefing, outlining what each platoon would do and their areas of responsibility. Then he turned to me.

"Dixie, I've got an extra job for your Gimlets. The S2 says that we have Korean agents behind the enemy lines that will be infiltrating through to us. They will carry identification. They are to be sent back to battalion without delay as soon as we meet them. But I want to know what's out front, too. How do you think we can work it?"

I suggested sending one of my squads out with each patrol (they had to be big anyway) and my men could interrogate PWs or agents as they were brought in. This would eliminate delay at our CP and still give us immediate intelligence. The plan was approved. When we moved at daybreak Company L was on the battalion's left flank. King was on our right and Charlie was on our left. We met only token resistance.

We took Chongju again, dug in and sent patrols out. If all went well, we would make the border in five days. All didn't go well.

Corporal Rounds' patrol brought in three Allied agents, four Reds and a new Russian jeep. He reported a mine field being laid on our front. The agents reported thousands of mounted troops about fifteen miles to our right front. This information was phoned back while the agents were back for further interrogation. We were ordered to dig in solid. Other reports were coming in.

The honeymoon was over. Before the information could be completely evaluated, the Reds hit the center again. Another bugout, the biggest, was on the way. However, the enemy had been forced to fight before he was set. By making him fight then, costly though it was to us, it threw him off balance and prevented his buildup for a winter offensive that might have pushed us out of Korea.

MY ROKs fought well—as they always did. They were men who traded, borrowed and even liberated BARs from rear-echelon troops so that they could have two to a squad and make the fire teams more effective. They were men who calculated their risks and had only twenty-seven casualties, none killed, while inflicting heavy casualties on the enemy. They were the men who attacked in helmet liners or fatigue caps. They were the men who charged the enemy with bayonets gleaming, confident of victory. They were men (just cogs in the great Yo-Yo that swung up and down the Korean peninsula, from victory to bugout to victory again), secure in the knowledge that they were a part of the best company, battalion, regiment and division in the world. They believed it. So do I.

My Gimlets proved to me that ROK troops or any troops can be good—if given superior training and a feeling of belonging.

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Superlative individual training and confidence created by crawling through an infiltration course are not enough. We must emphasize small-unit teamwork and give thorough practice in the simple basic plays of the rifle platoon.

IN a little military classic titled *The Defence of Duffer's Drift,* which is no longer to be found in the lists of Combat Forces Book Service, Lieutenant Backsight Forethought and his platoon are dropped off at an isolated stream crossing to hold it for three days, come what may: Now the Lieutenant was a regular, ambitious and enthusiastic. He had graduated from the service schools appropriate to his rank. Reflecting on all the regulations, precedents, and map problems he could call to mind—just how to organize his platoon and, without hope of support for three days, defend a stream crossing against anticipated superior strength—had him badly bewildered. Had his problem called for disposing a division—that would have been easy. In the service schools he had solved several problems about divisions, and he'd come out very well, too.

In his uncertainty, Lieutenant Backsight Forethought put off the problem and simply fed his men and made them comfortable. During the night the enemy came and captured the crossing after only the briefest skirmish.

In the book it was all a dream, and in successive dreams he was given chances to solve the same problem and finally he solved it correctly.

BRIGADIER GENERAL EDWIN H. RANDLE, Retired, is a former Doughboy who fought against the Germans in both World Wars and the Japanese in the Second. Retirement, he tells us, has given him "leisure to reflect, evaluate and write, and I hope the results may be helpful to those who seek them."

This fable, written many years ago, points up the problem of the tactical training of junior leaders and smaller units. In practice this training is today only a little farther along than when the breechloading rifle broke down massed battle formations, and thrust tactical decision and maneuver on officers and noncommissioned officers whose previous battle function had been to get their units properly into the mass and set examples of courage. The substandard quality of such training has been obvious to nearly everyone in two great wars. But not many have deduced the cause and the cure.

We can't blame this on The Infantry School. Over the years it has developed and taught sound tactics. It has had to compress into limited time the ever-expanding techniques of infantry. It has never pretended to be able to give each officer full practice in his trade.

Nor should blame be placed on junior leaders themselves. They have done the best they could under an inadequate and haphazard training system.

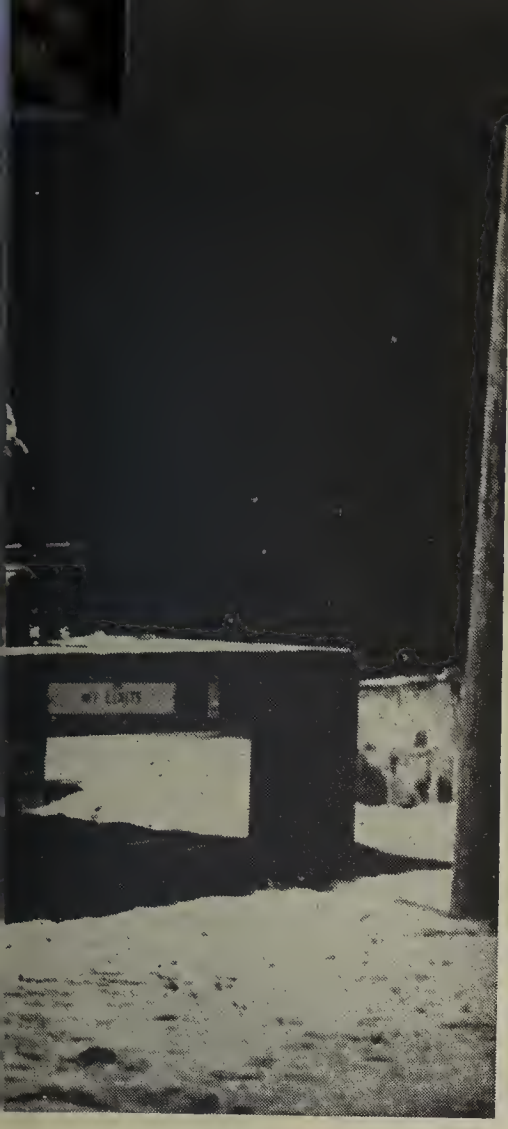
In preparing for combat in World War I, small-unit leaders received practically no worthwhile tactical training. As a potential company officer I remember executing squad rushes purely as a mechanical drill, across a forty-acre field, in full pack under a blazing July sun. I took part only once in the operation of an advance guard. And I listened to an uninspired officer read from a book the exploits of "Sergeant Hill."

But with this tactical equipment we were soon commanding platoons and companies. And not much later we were up against good German troops with three years of combat behind them.

We were pretty fair at close-order drill and we'd spent hours throwing dummy hand grenades in a most unnatural manner. (In two World Wars I never saw an American soldier throw one in combat other than by pulling the pin and heaving it as came most handy.) We spent hours putting on and taking off gas masks, which any nitwit can learn to do in thirty minutes. Out of all proportion and reason, time was taken from the subject used in combat all day, and day after day—small-unit tactics. Tactical skill that breeds confidence and resourcefulness, gains ground, kills the enemy, saves lives, wins battles and makes the communiqués come true was mostly a closed book to us.

We learned our tactics in combat as most American junior leaders have had to do. Trial-and-error was the method and skillful enemy troops were the instructors. The lessons they gave us were costly, very costly. There is a much better way.

With the coming of World War II and during the years just before it, there was great improvement in doctrine, technique, and manuals. The Infantry School had been founded and was giving intelligent and serious thought to small-unit tactics. But there was little improvement elsewhere. Everyone discussed it, gave lip service to its importance, criticized junior leaders for its unsatisfactory state—but then permitted lack of imagination, restricted facilities,



"It's situation number two,
You're Sergeant Hill, now what do you do?
You're wrong, wrong, wrong, wrong.
It isn't that at all."

WORLD WAR I TRAINING CAMP DITTY

It's Situation No. 2

Brigadier General Edwin H. Randle

inertia, and every old and new military hobby to encroach on its schedule and prevent its practice. There were a few memorable exceptions.

WITH the expansion of 1940 and the next two years, small-unit training was still sacrificed to almost everything else. Training was highly centralized, contrary to all previous doctrine. Rigid directives went down from Headquarters, Army Ground Forces, army, corps and division headquarters, prescribing by hour, and hour after hour, our old friends: grenade throwing, gas-mask drill, individual cooking, and so on. Conscientious G3s felt they weren't earning their salt unless issuing such directives.

Most directives pertained to the individual soldier and little time was left for small-unit tactical training. We were developing fair individual soldiers and specialists, but few if any skillful platoons, companies and battalions.

I do not mean to imply that the directives were valueless. My quarrel is with their emphasis, and the cumulative effect they had on division and regimental commanders. I am sure any commander would prefer to have platoons, companies and battalions which could march, shoot, and skillfully attack the enemy, than collections of soldiers who could do a multiplicity of things as individuals, but who in action would be the first to cry, "We are pinned down. What shall we do?"

A soldier must be able to march, shoot, use cover, live in the field, know something of his enemy, and perhaps even climb up and down a net on the side of a ship. But these things do not require day after day of practice. A man can learn all there is to know about climbing a net in two tries.

But superlative individual training is not enough. Unless the soldier is able to play his part with confidence and skill in a rifle platoon; unless the is thoroughly practiced in the team plays and techniques which make a unit a controlled, coherent, skillful group able to use its combined fire power to the greatest effect—unless he is able to be a part of a team, the finest individually trained soldier will fail in combat.

So much time was used up in individual training that not much remained for training tactical units. Higher commanders were in a hurry to get on to division and corps maneuvers, with the result that platoons, companies, battalions and even regiments had their training time compressed within far too narrow limits. But the fighting effectiveness of a division is no better than its platoons, companies, and battalions.

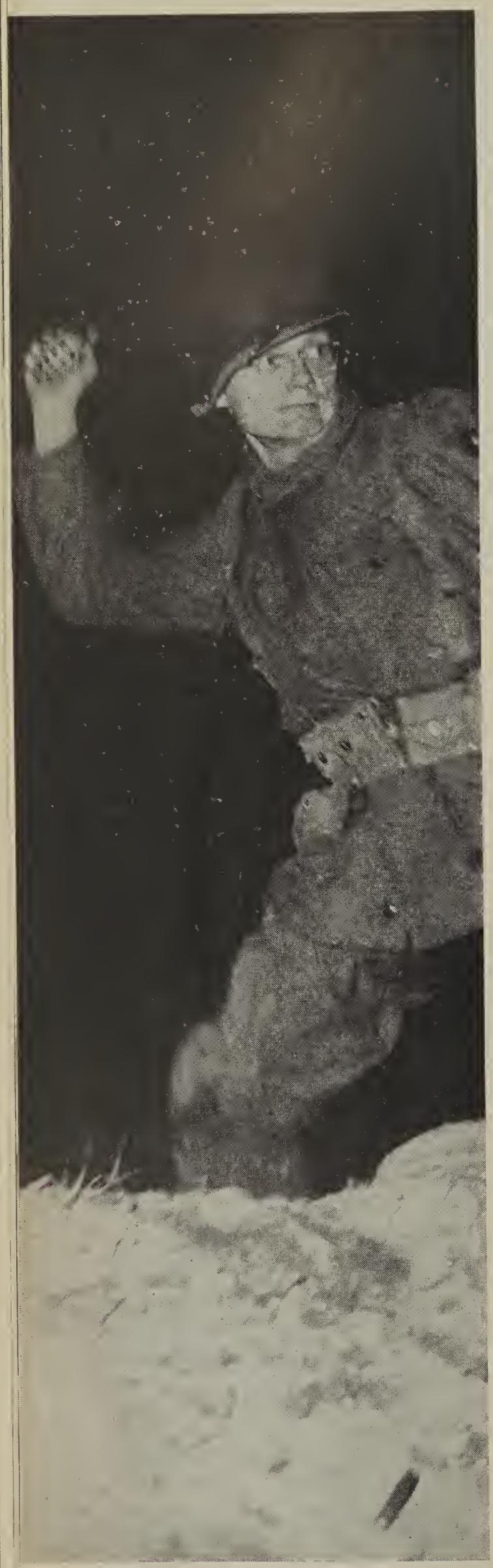
Another factor is the astonishing absence of continuity of command and assignment within the smaller units. Squad leaders as well as their seconds in command, scouts, special-weapons men and the like, are shifted about so much that it is rare for one of these teams to have the same leader and be composed of the same men on any two consecutive training days. Lieutenants and platoon sergeants are always fair game for special-duty assignments.

Suddenly the unit is alerted. Training tests are held and everyone deplores the fact that small-unit leadership and skill are not all they should be. How could they be when the continuity of small units and their team training are subordinated to every other consideration? I venture to say that most platoons went into action in World War II under lieutenants and platoon seargeants who had had no hand in their training, and with a large percentage of men with whom neither the leaders nor the platoon had ever before worked.

It will be argued that lack of continuity is habitual in battle. Of course it is. But by the time the battlefield is reached, the platoon, company and battalion should have attained such a degree of confidence and skill in their standard plays that they can carry on in spite of substitutions, particularly when the substitutes have been trained in the same basic plays and the same techniques of combined firepower. When units have never had a chance to develop team skill, even though composed of courageous, determined and well trained individuals they will be clumsy, timid, suffer needless losses, and be lacking in complete effectiveness.

Among the handicaps to effective small-unit tactical training are large-scale maneuvers as they have been conducted in the past. Large maneuvers are costly, time is usually very limited and the tendency, therefore, is to attempt to cram into them every possible tactical experience. The result is that junior leaders become confused, angry and discouraged. Finally throwing all sound tactics to

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"In two World Wars I never saw an American soldier throw a grenade in combat other than by heaving it as came most handy."

the winds they end up by ordering, "To hell with it! The blue flags are up; get on to the next ridge any old way, but get there." Of course at the critique the state of small-unit training is deplored, but until large maneuvers are run on a realistic time schedule the Pickett's Charge tactics will inevitably recur.

In the opinion of many thoughful officers the controlled exercise is a better training vehicle for both large and small units than the free maneuver. When free maneuvers are used difficulties of control demand that they should be limited to pre-close contact situations. As soon as close contact has taken place, troops, except headquarters and communications personnel, should be withdrawn and thereafter the situation developed as a command post exercise. Commanders and staffs will gain just as much benefit and the infantry troops will be spared experiences detrimental to their tactical training.

It used to be maintained that sound training, often repeated, habituated the soldier to a correct course of action in battle regardless of fear, excitement, confusion and the many other stresses of combat. This is still sound psychology and it applies to tactical training just as to close-order drill. Yet in the late war this concept of thoroughness and repetition was largely thrown out the window in order that the junior officer and soldier might get the greatest variety of individual techniques and information —in the vain hope that it would stick and be useful. Our infantry soldiers of World War II received far more military information than their fathers in World War I; their discipline was no better and, like their fathers, they had to learn most of their small-unit tactics on the battlefield.

A rifle platoon is the basic fighting team of the division. But in most rifle platoons we count too heavily on there being at least one natural star. He is the man of outstanding initiative and courage who compensates for the uninspired execution of his teammates. He is the man who carries the platoon forward and wins the decorations. Frequently he is not even the nominal leader. I have seen a single resourceful private carry an entire platoon forward, and in another instance a company. But many platoons do not have a star performer. They are the ones which get pinned down every time fire is encountered.

In an infantry regiment there are twenty-seven rifle platoons; in a division, eighty-one. It takes a considerable amount of time to effectively train this number in a few basic plays even when the training is intelligently prepared and executed. Since the rifle platoon is the basic fighting unit of a division, all tactical training should be centered first on developing smart, smooth-functioning and hard-hitting teams.

A rifle platoon need know only eight plays, but it must know them so well that fog, smoke, darkness, fear, or confusion of battle cannot prevent their smooth execution. In starting, much training time can be saved by the use of demonstrations. Each of eight platoons within the regiment or division can be first perfected in one play and demonstrate it, not once, but several times to all of the other platoons. An instructor with a loudspeaker can point out and explain the reason for each detail of troop-leading and technique as the demonstration proceeds.

At this point let me list what I consider to be the eight basic plays for a rifle platoon:

(1) The approach march. Formations; actions of scouts; distances and intervals; signals; direction and change of direction; locations of leaders.

(2) Actions when scouts are fired upon. Actions of the scouts; the platoon leader; the platoon sergeant; the squad leaders; and the squads.

(3) Building up on the scouts. A part or all of the platoon, depending upon the platoon leader's plan. The detailed technique of execution. Positions and duties of leaders.

(4) The fire fight (fire and movement). Action of the holding attack or base of fire, as it has been called. Action of maneuver element whether it be (a) all of the platoon less scouts; (b) two squads; (c) one squad; (d) an automatic rifleman and one or two riflemen. Coordinating the two attacks; locations and duties of all leaders and the exact techniques for carrying out the plan.

(5) The assault and reorganization. Exactly how accomplished, with every detail of execution.

(6) The platoon as the advance party.

(7) The platoon in defense.

(8) The platoon in withdrawal.

Older officers will recognize these plays as coming from *Combat Principles of the Rifle Platoon,* published some years ago. I have always thought this a more specific and consequently a better and more realistic manual on the subject than later publications. It told the inexperienced officer and noncommissioned officer just what he needed to know. It described exactly the team

plays and the detailed techniques for their exact execution. Once the platoon leader and his platoon have been thoroughly drilled in these plays, on varied terrain, he will have a sound basis of tactical know-how from which to vary the plays to meet changed conditions.

Now how does a first-class football coach go about teaching team plays? If he is a Knute Rockne he is a perfectionist. He has a blackboard and uses it. He explains the situation and the play in great detail, what each man is to do and how he is to do it. Then he has the team try it out, perhaps the first time in slow motion. The coach points out the errors and the team runs through the play again, and again, and yet again until it is executed not only without errors, but with perfect timing and coordination. Ne secrets, no surprises. The testing comes in scrimmage. The equivalent to scrimmage for the platoon is the combat range. The secret of success is standardization of plays and repetition of each play until perfection of each detail is attained. Of course marksmanship and the mechanics of combat formations must precede tactical training. Target designation, fire control, and fire discipline, in short the collective fire of the fire unit—the platoon—should be taught and repeatedly practiced concurrently with the mechanics of combat formations. Control, maneuver, fire control, and fire discipline must become instinctive. Each play may be run through against an outlined or represented enemy when the instructor believes details have been mastered.

During 1943 I was present when a corps team was giving a final test to an infantry battalion. At the critique the battalion was found deficient in the use of fire-and-movement. It developed that none of the platoon leaders, nor any of the testing team, for that matter, knew the techniques used by a platoon leader to advance his unit by rushes of elements, by infiltration, or by maneuver of a subordinate element, while covered by the fire of the remainder. They had all heard of it and no doubt had seen demonstrations of it at The Infantry School, but they had never practiced it and were at a complete loss as to just how fire-and-movement was accomplished. Our training manuals used to describe this play in great detail; what commands or signals were given, how the rushes were made, who fired and who did not, and the like. But the training manual then current discussed fire-and-movement in general terms only, and for some reason most of the details of execution had been omitted.

NOW a few words as to combat practice firing. To most soldiers in combat for the first time the most surprising and disconcerting thing is that while the enemy is firing at them they can not see anything to fire back at. The enemy is not showing his head and shoulders in nice even rows like the silhouette targets did on the combat range. Having experienced this phenomenon myself in the First World War, in training a battalion in 1940 and 1941 I stressed (as much as the vast amount of time wasted on less important subjects would permit) target designation, fire distribution, fire control and fire discipline. On the combat practice range an enemy rifle-platoon position was laid out with silhouette targets; but the targets were not set out in a straight line in the open. Within a logical platoon position each target was placed behind the cover that a trained soldier so disposed would use. Leaders were likewise placed behind cover and in their correct positions. The result was that none of the "enemy" could be seen at even two hundred yards. But had each been a soldier he would have been under the control of his leader and able to fire his weapon effectively.

Platoons were warned they would have to rely on range estimation, target designation and fire distribution to get hits. The line of departure was about 700 yards from the enemy. The platoon leader could cause his scouts to open fire when they saw any of the enemy, or when the enemy opened fire, as indicated by a man in a pit firing several rounds.

The first time each platoon ran through the problem, using plays 1 to 5, surprisingly few hits were registered on the targets, but when the leaders and the men became convinced that there was something to this target designation, fire distribution, fire-control business the number of hits increased to an astonishing and gratifying degree.

IN my opinion this is the answer to much of the discussion as to why men did not use their rifles in combat. They could not see anything to shoot at and their own and their leader's training in what used to be known as musketry had been most inadequate. The so-called transition courses were more individual training and in no sense a substitute for team training in combined fire power.

In the past two wars our emphasis has been misplaced. We must teach thorough small-unit teamwork. It is used every day and all day, and in the end it contributes a major share to the outcome.

It is almost certain that in the future our Army, with perhaps only a small percentage battle-experienced, will from the very start have to stand up to and operate against the massed formations of Eastern Europe and Asia. Only when the proper emphasis has been given to developing very highly skilled tactical units; only when we can oppose vast masses with the superior comparative intelligence, resourcefulness and tactical skill of our junior leaders and our tactical teams, will we be able to adequately preserve our manpower and oppose the Communist levies on equal or superior terms.

Individual training must come first, to be sure, but the emphasis must be on small-unit teamwork, practiced endlessly, day after day.



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FRONT and CENTER

Big Job

The requirements for membership on the Citizens Advisory Commission on Manpower Utilization were high: "the finest brains available—men of initiative, bold thought, careful planning and wide experience"—and for that reason Mr. Lovett was cautious in selecting members. By the first of November two of the civilian members had been selected: Gen. David Sarnoff, USAR-retired, who will serve as chairman, and the Rev. John C. Cavanaugh, former President of Notre Dame. The Commission is also to have a retired regular officer from each of the services; these officers are: Maj. Gen. John B. Anderson, USA; Adm. John H. Hoover, USN; and Maj. Gen. Merritt B. Edson, USMC. The retired Air Force officer had not been named by 1 November.

The job of the Commission is to "make a comprehensive and thorough study of the entire problem of the utilization of manpower by the Armed Services."

Its recommendations "shall be designed to accomplish the most economical use of manpower in the Armed Forces, without diminishing their combat capabilities."

A big job—as all soldiers know.

To help the Commission each service has appointed a liaison officer to work with it. The Army member is Brig. Gen. Herbert B. Powell; Navy: Capt. Henry C. Bruton; Air Force: Maj. Gen. Roger Browne; and Marine Corps: Col. Cliff Atkinson, Jr.

Maj. Gen. Merrill B. Twining, USMC, is Military Staff Director of the Commission.

The Commission will make continuing reports and recommendations as it proceeds, rather than a full report at the end of its labors.

Another Commission

Still another civilian commission was at work. This one on "Incentive-Hazardous Duty and Special Pays" is headed by Lewis L. Strauss.

Its job is to make a detailed study of incentive and special pays in the military services, Coast Guard, Public Health Service, and Coast and Geodetic Survey.

It is expected that the Commission will make its report before the first of the year so that Mr. Lovett may send its recommendations to the Senate Armed Services Committee soon after the first of the year.

The establishment of the commission was suggested by that Committee. It is expected that much of its work will be based on the exhaustive studies the Hook Commission made a few years ago.

Motor Pools Standardized

The Chief of Transportation, who has been given responsibility for all administrative transportation used in Army motor pools, has established a model motor pool at the Transportation Center, Fort Eustis, Va.

The model motor pool will consist of a super service station, production line maintenance shop, central dispatch office and approximately 40,000 square yards of parking space. These facilities, besides serving the post with motor transportation, will be used to demonstrate the benefits to be derived from streamlined dispatching and preventive maintenance.

A course of instruction for supervisors of administrative motor pools is in the works. It will be operated by the Highway Unit Training Center and the Transportation School. This course will cover such subjects as: motor pool management, principles of vehicles utilization, sound operating practices, simplified maintenance procedure, shop facilities and equipment production line maintenance and vehicles and parts supply. It is planned that trained supervisors completing this course will return to their organizations equipped to establish better motor pool procedures and to provide courses of their own to perpetuate the program.

Mr. Brown Retires

Mr. A. Stanley Brown, Treasurer of the U. S. Infantry Association and the Association of the U. S. Army since 1919, retired on 31 October.

While it can be said that Mr. Brown served under many editors, it would be more accurate to say that they all really served an apprenticeship in business under him. His close attention to all business details and his loyalty to the Association made him a reliable and valued adviser.

He came to the Infantry Association in 1919 from the War Department where he had served during the war years. During his long career at the JOURNAL he came to know many Army officers and when he completed thirty years of service the Executive Council gave him a unanimous vote of thanks and appreciation for his loyalty and devotion.

Mr. Brown will continue to make his home in Washington but anticipates many pleasant vacations on a Florida beach which he has long known and loved.



Arctic Air Bases—Built by Paul Bunyans

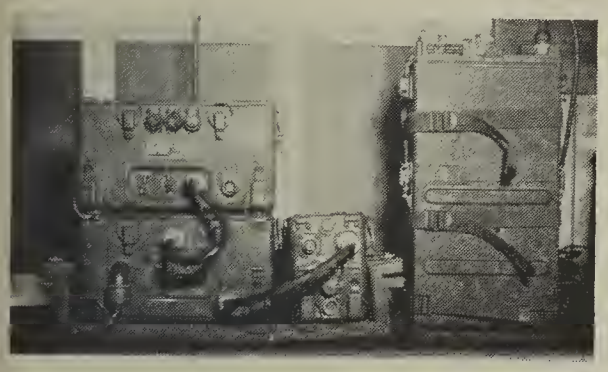
When it can be told, the full story of how Army engineers built air bases in the Arctic wilderness will be in the Paul Bunyan mould—a story of fabulous concepts and tremendous daring, of battles against the elements at their worst. So far only the bare outlines of the story have been told. The first men flew in in helicopters. Heavy equipment was air-dropped. A runway for cargo aircraft was created by shoving snow off the ice of an Arctic lake. There were tremendous battles against the wind which drifted the snow back on runways as fast as snow machinery could remove it. To get frozen gravel from the moraine, the engineers had to resort to the methods of quarry-men who blast stone. High carbon steels in cutting edges and track plates would break and the job of keeping equipment in working condition was continually harassing. Welders worked outdoors in minus 40 degrees temperature. But the job was done.

THE ARTILLERY SCHOOL

Communications Made Easy

The Communications Department has established a "VIP" room where students and important visitors get a clear, simple introduction to the new family of FM radios. In a room full of training aids for illustrated conferences and orientation, communications are presented in laymen's language and new radios explained by comparing them with the sets they replace.

The aim is to make it easy for the un-



Artillery set SCR-619 (left) and its replacement the AN/PRC-9 (right)

initiated to assimilate new methods of communication. The system gives students and VIPs a background in the frequency spectrum of Army radios and the Army-Navy nomenclature system. Charts graphically representing these two subjects are designed with appropriate colors depicting the different arms.

A typical class is opened by discussing the frequency spectrum of the arms. A chart (*see cut*) shows the range and the number of operating channels. The infantry band and a new band common to all arms is explained in detail since their purpose requires more emphasis.

Overlapping frequencies between arms are pointed out to show the capability of one arm to communicate with another on its normal band and on the common band. For example, armor has 10 channels overlapping with artillery and artillery has 10 channels that overlap with infantry.

To explain the Army-Navy nomenclature system the AN/PRC-8, 9, and 10—"Walkie-Talkie"—is used. This is a new series that replaces particular sets in armor, artillery, and infantry. This 26-pound AN/PRC series takes the place of the 55-pound SCR-510 used by armor, the 55-pound SCR-610, the 53-pound SCR-619 used by artillery, and the 36-pound SCR-300 used by infantry.

The origin of the nomenclature is explained so that the class understands the meaning of the letters and numbers used: For example, AN/PRC-9. AN stands for Army-Navy; the first letter following the slash denotes the type of installation or where the set will be found (P—pack or portable); the second letter represents the type of equipment (R—radio); the third letter shows the purpose of the set (C—communication); the number represents the model of that particular set. The model numbers describe the frequency range, indicating what arm can use the set. Number 8 denotes the lowest frequency range and the smallest number of channels—the armor set; 9 represents the next higher frequency range and the middle number of channels—the artillery set; 10 denotes the highest range and the largest number of channels—the infantry set.

A student can grasp the uses of an entire series by using only one radio in the series since the only difference between models in a particular series is in the frequency range. The new AN/GRC series is discussed briefly, showing how any communication requirement can be met by interchanging the component parts of a basic set within this series.

This method of introducing and familiarizing students and visitors with radio communication equipment permits instructors to discuss each model without repeated reference to the frequency range and nomenclature system. The use of non-technical terms helps those who have not kept up with developments in communications.

New Field Manuals

FM 21-13, *The Soldier's Guide,* written at The Artillery School, is an easily understood manual designed to help the recruit adjust himself to Army life. It acquaints soldier and civilian alike with the history, achievements, and organization of the Army, describes the code of the soldier, his responsibilities, and the advantages of military service. It defines duties and training such as drill, health, marches, combat training map and photo interpretation, and defense against atomic, biological, and chemical attack, and explains the weapons used by the combat soldier. *The Soldier's Guide* has been issued to organizations authorized field manual distribution, and may be purchased for 55¢ directly from the Superintendent of Documents.

FM-6-75, 105mm Howitzer, M2 Series, Towed, is the first of a series of revised service of the gun manuals written at TAS. In the revised editions, the familiar term "service of the piece" is eliminated in preference to the more descriptive artillery term "service of the gun." The revision describes in detail the latest techniques, the four methods of bore sighting, setting a precedent whereby bore sighting will be covered henceforth in service of the gun manuals instead of in FM 6-140, *The Firing Battery.*

Other features not found in service of the piece manuals but incorporated in the new service of the gun manuals are more illustrations, basic periodic tests, and presentation by charts of the individual duties of the cannoneers. The chart, as opposed to the list, was devised as a method of describing cannoneers' duties so that each man in the gun section could better understand his duties in relation to those of others in the section.

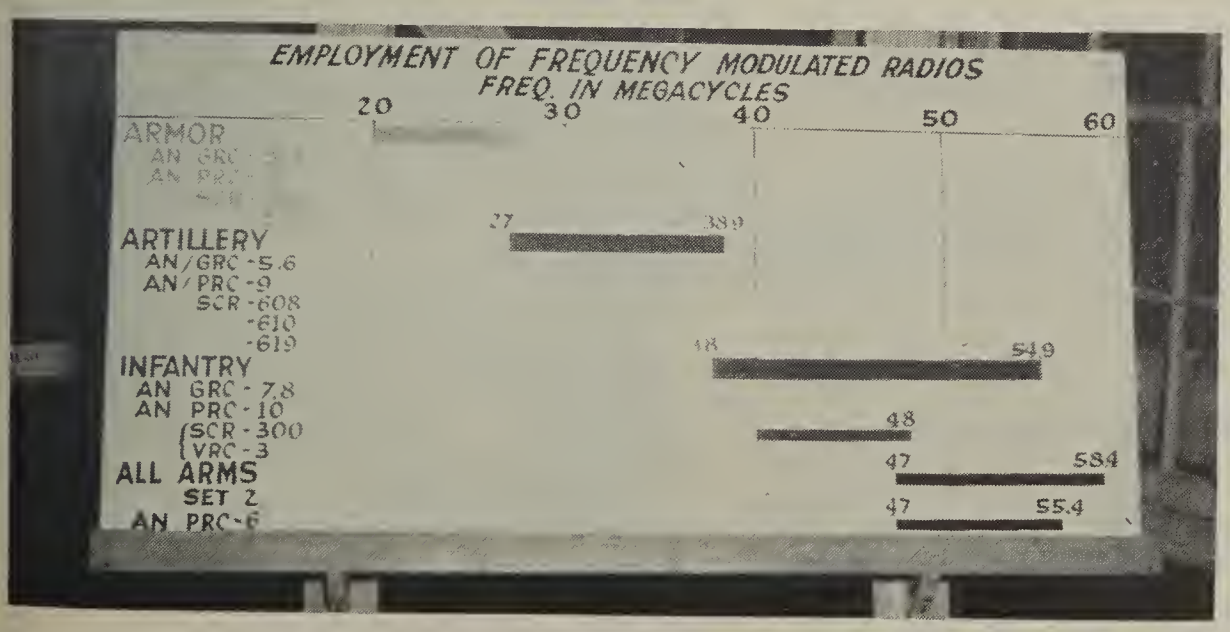


Chart shows the frequency range of FM radios of different arms

Close-Defense Class

A two-hour class devoted entirely to the ramifications of close battery defense has been included in the program of instruction for Advanced, Battery Officer, and Officer Candidate courses at TAS. The instruction covers both the active and passive measures available for field artillery defense against air, counterbattery, or ground attack while in bivouac, position area, or on the move.

Although it is not the mission of the field artillery to close with the enemy, artillery units have had to engage in such action, so stress is placed on the need for training in infantry small-unit tactics. The necessity of unit SOPs covering all types of hostile attack is emphasized, including the use of a semipermanent security platoon within the artillery unit.

Weapons Film

A new 35mm technicolor film bulletin was recently previewed at TAS. Filmed at Fort Sill earlier this year, FB 253, *Weapons of the Artillery* is based on the Department of Matériel's Mat 102, which is presented to students to demonstrate the characteristics and capabilities of weapons.

The artillery's new 280mm gun will be included in this movie before its release in 16mm size to other service schools and Army Reserve and National Guard installations.

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Irons in the Fire





Engineers' aluminum bridge

Aluminum Bridge

Army engineers working with the Aluminum Company of America and the Pittsburgh-Des Moines Co. have come up with a new lightweight aluminum bridge, officially tagged the T-6. It can be erected faster than any other heavy tactical bridge. It is wider and can support about fifty percent greater loads than comparable World War II structures. The T-6 is normally considered a division-type bridge but with slight modification it becomes the T-7, army-type. Spanning approximately 180 feet, the T-6 can be manually erected in about one-third the time required for the same length as the old Bailey bridge.

New 4.2-inch Mortar

The new M30 4.2-inch mortar has a rifled bore, is muzzle loaded, and lobs projectiles 6,000 yards or so. The first model had an inner baseplate and an outer baseplate ring. Later ones have a one-piece baseplate. Other components include rotator, bridge, standard, and barrel. All are rigidly joined and all absorb some of the shock of the recoil, an unusual feature. In the M30, we have traded almost double the World War II weight for greater range, better accuracy and stability and 360-degree traverse without moving the baseplate.

Revolving Monster

The XH-17, the world's largest known helicopter has made its first test flight. Built by Hughes Aircraft Co., for the Air Force, the XH-17 is an experimental heavy-lift machine expected to lift and deliver such heavy equipment as artillery, bridge sections and trucks in areas inaccessible to conventional aircraft. Rotor blades on the XH-17 extend over 125 feet from tip to tip; overall height of the giant 'copter is more than thirty feet. It is powered by two modified General Electric turbo jets supplying gas pressure through ducts leading up the rotor shaft and out to the tips of the rotor blades. The XH-17 handles its cargo on the same principle as a lumber lifter and the width of cargo space is about equal to two standard automobiles parked side by side.

Dangerous Dipstick

The oil level indicator gage—the dipstick of the GMC H135 2½-ton truck is so located that when it is withdrawn from its well it is easy for its circular handle to touch the positive terminal of the battery while the other end of the dipstick is in the well. A short circuit can result—severely injuring the mechanic or driver and possibly damaging engine parts.

To avoid this type of accident the Department of Motors, The Artillery School, offers the following preventive measures:

While withdrawing the dipstick, cover the handle with the hand, or cover the positive terminal of the battery with the hand. The hand will act as insulation and will prevent the dipstick touching the battery terminal, and the short cannot occur. It is also possible to bend the dipstick or the well slightly away from the battery as it is withdrawn. Recommendations for changing the location of the battery or the dipstick well, or for placing a guard around the positive terminal of the battery are in the works.

NATO Standardizations

The U.S. Army M1 rifle has been selected as the standard infantry weapon for all troops of the nations of the North Atlantic Treaty Organization. Other standardizations include: Britain's 50-ton Centurion tank, France's 81mm mortar, and the U.S. 155mm howitzer.

Flying Trailer

Fairchild Aircraft's latest contribution to the field of transportation is a variation of the XC-120 "detachable-pod" plane in the form of a trailer which is a detachable cargo compartment for the plane. In flight, the new trailer will carry as much cargo as the original pod and upon landing, the trailer is detached and can be hitched to almost any military vehicle and hauled wherever needed. Fine maneuverability and high-speed over-the-road characteristics enhance its value in air-supplying ground operations. With one eye on civilian use, Fairchild engineers have designed the trailer so that it can be loaded at a warehouse or freight dock. Cargo-loading features include the ability to admit freight from both front and rear through wide, double-folding doors. The floor, located at standard truck bed height, is fabricated of extruded magnesium channels which provide strong and durable decking. During flight, wheel assemblies, which include shock absorbers and standard truck-type wheels and tires are removed and stowed aboard the trailer.



Top: ***Fairchild Sky Trailer resembles windowless trailer on highway;*** **middle:** ***hoisting it into position under the XC-120;*** **bottom:** ***aloft.***

★ BOOK REVIEWS ★

ADMIRAL KING'S RECORD

FLEET ADMIRAL KING: A NAVAL RECORD. By Fleet Admiral Ernest J. King, U. S. Navy, and Commander Walter Muir Whitehill, U.S.N.R. W. W. Norton & Company. 674 Pages; Illustrated; Index; $6.75.

This collaborative work grew out of Admiral King's desire to augment the story of naval operations as told in his three wartime reports and Commander Whitehill's desire to write a biography of his former chief. Unlike Secretary of War Stimson, Admiral King kept no diary. He did not begin to set down recollections until after his relief as Chief of Naval Operations in December 1945. And this biography is the result of a novel method of working. Admiral King assembled voluminous notes on his own recollection of what occurred and why. These were checked against the memory of officers who served with him and against official documents. Whitehill went about preparing the biography as if his subject "was no longer living." Then, by frequent consultations and endless correspondence, their two accounts were woven into one. The result is a solid book that throws much light on Allied leadership in World War II. It ranks with Sherwood's *Roosevelt and Hopkins,* Stimson's *On Active Service,* Admiral Leahy's *I Was There,* and Arnold's *Global Mission.*

Commander Whitehill was well advised to devote the first half of the book to Admiral King's training and naval service up to 1941, for this service underlay all his wartime decisions. There is a consistency and uniformity about Admiral King's career. He was a taut ship man as a line officer and an efficient administrator as a staff officer, and his standards of performance were high. No one who had anything to do with Admiral King had any illusions about his mental and physical toughness, but as this account shows, he did not shave with a blowtorch—as was commonly believed—and he did not trim his toenails with a net cutter!

The range of King's naval experience was unusually broad. Besides normal assignments as a junior officer, he taught at the Naval Academy and the Postgraduate School and edited the U. S. Naval Institute *Proceedings.* And in order to learn first hand about logistics, he accepted command of a supply ship. Later he headed the submarine base at New London and raised two sunken submarines. He took pilot training when he enjoyed the rank of captain, and commanded in turn a patrol plane unit, a carrier, and a carrier force. He reached the big league in 1933 when he became Chief of the Bureau of Aeronautics. From this post he went to the General Board and to the command of the Atlantic Fleet in 1940. King was one of the few "triple threat men" in the Navy with detailed knowledge of surface, underwater and air forces.

When the Japanese struck at Pearl Harbor, King was trying hard to make bricks without straw in the Atlantic. To say that he was surprised when the President summoned him to Washington and made him Commander-in-Chief of the U. S. Fleet would hardly be true. King knew he was among the best officers in the fleet. Roosevelt solved the age-long division of authority between the Commander-in-Chief of the Fleet and the Chief of Naval Operations by combining these offices under King in March 1942.

Admiral King had taken part in Fleet Problem XIX which showed how vulnerable Pearl Harbor was to a carrier attack conducted under the cover of a weather front. Because the Army was charged with the protection of the fleet in its base at Oahu, King did not think that Stark and Kimmel were as much responsible for the disaster as Marshall and Short.

As Navy representative on the Joint Chiefs of Staff, King thought the JCS made any unification of command in Washington unnecessary. He opposed the appointment of a Presidential Chief of Staff even when it was Admiral Leahy. His postwar advice was simply to continue the Joint Chiefs of Staff. King approved the decision of the Joint and Combined Chiefs of Staff that Germany should be struck down first, but he constantly urged



WINCHESTER*

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BY HAROLD F. WILLIAMSON

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that enough pressure be applied to Japan to prevent her from consolidating her gains in the Pacific. His basic ideas on strategy were evolved from a study of the manpower and armament capacities of the Allied coalition. For that reason he was interested in keeping China in the war in the hope of utilizing her immense manpower resources against Japan. In view of what we now know of Japan's situation after Midway and Guadalcanal, it is a little surprising to learn that Admiral King thought she was capable of resuming the offensive in the Pacific long after she had given up any such plans.

As the readers of Stimson's memoirs know, a controversy of considerable intensity raged over the problem of who should command the Army Air Force planes engaged in antisubmarine operations. King's attitude was that the *function* involved should determine command. The Army and the Air Force attitude was that the *weapon* should determine command. This impasse was only solved through the withdrawal of the Air Force from antisubmarine operations in September 1943. Stimson's attitude convinced King's staff that "this great man and wise statesman . . . regarded the military mind as immature and addicted to petty wrangles. . . . He [Stimson] lived in an ivory tower high on the slopes of Olympus, as befitted an elder statesman and his voice was as the mutter of distant thunder."

The claim is also made by Admiral King that General Marshall "could not be impressed with the significance of the Marianas," which provided a base for our B-29s against Japan, and that it took a year of discussion for Arnold to see that they offered a better base than fields in China. This observation should be weighed against the Army commitments in the Southwest Pacific and General MacArthur's insistence on the southern route of advance. King and the Navy were convinced that the proper route of advance was in the Central Pacific and that Formosa and China were more promising areas in which to defeat the Japanese than the Philippines.

No naval officer in modern times has had so much power concentrated in his hands as did Admiral King from 1941-45. Yet this biography is strangely silent on his inability or unwillingness to force the Bureau of Ordnance to do anything effective about the faulty exploder on our torpedoes which made the lives of our submarine commanders in the Pacific a nightmare for the first two years of the war (Theodore Roscoe, *Submarine Operations in World War II*). In other matters King demanded a high standard of performance and generally got it.

When Nimitz, in response to a request as to how the flag officers in the Pacific Fleet were doing, made the conventional reply that they were all doing well, King gently observed that some must be doing better than others and the latter should be called upon for improvement. He felt that Admiral Spruance's conduct of operations in the Marianas was a model of efficiency. Unlike Halsey at Leyte Gulf, Spruance did not allow his desire to defeat the Japanese surface force to draw him away from his responsibility for protecting the landing force. He managed to achieve both.

Admiral King attributes the surprise caused by Admiral Kurita's breakthrough in San Bernardino Strait on October 25, 1944, and the losses suffered by the Seventh Fleet, to Admiral Kinkaid's failure to conduct air searches after Kurita's turning movement as well as to Halsey's northward rush after Ozawa's decoy force.

King's major difference of opinion with Marshall and Stimson was over invading the Japanese mainland. At a relatively early stage in the war he concluded that Japan could be defeated by sea and air power without the necessity of an invasion. He reluctantly acquiesced in the decision to invade Kyushu and Honshu. In the light of afterknowledge it appears that King was right, but in the summer of 1945 no one could guarantee that Japan would surrender even in the face of the atomic bomb and Russian intervention.

It is a misfortune that Admiral King's difficulties with Secretary Forrestal clouded his last days in office. King seems to have been an unyielding advocate of the Navy's position in all matters relating to the war, but he showed a determination to make the Joint Chiefs system work. His much criticized attitude on release of news about the Navy was not based upon a desire to keep the public in the dark, but on a refusal to give useful information to the enemy. At a time when the public is being bewildered by the variety and contradictory character of statements issued by defense officials, it would be in the national interest to have a few men around as reticient as Admiral King! This is an important book and should be widely read by servicemen of all branches.—H. A. DEWEERD.

FRENCH OBSERVER IN WASHINGTON, 1865

IMPRESSIONS OF LINCOLN AND THE CIVIL WAR. A Foreigner's Account. By the Marquis Adolphe de Chambrun. Translated from the French by General Aldebert de Chambrun. Random House. 185 Pages; $2.75.

Marquis Adolphe de Chambrun, a friend of de Tocqueville and wed to La Fayette's granddaughter, heartily disapproved of Napoleon III and his usurpation of authority. He therefore decided to seek a career in the United States, although it meant temporary separation from his wife with whom he was deeply in love. To that circumstance we are indebted for these letters written during the first six months of 1865 in the best tradition of the epistolary art.

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leaders gave him an entrée everywhere including the White House. These contacts with President and Mrs. Lincoln, and many others, afforded an opportunity of weighing character and personality, of observing events closely in the final stages of the military campaigns of the Civil War. In turn a rare gift of analysis and expression makes these letters a genuine contribution to our history. That these letters were found a few years ago by General de Chambrun, the writer's son, and translated by him, is most fortunate.

Not the least of the enjoyment of reading these letters will be the incidental intelligence about our country in 1865. American cooking and the railroad journey from New York to Washington have certainly improved. Other things are unchanged. Whisky, "a liquor horribly popular here in America" has lost little of its allure. Speaking of politics, he wrote his wife that Vice President Johnson "is a Tennessean carried away by ambition. He has become what over here is called a politician, which in Europe corresponds practically to a demagogue. The American politician is almost the reverse of a statesman." If the Marquis could see the recent political campaign, he might not feel the need of changing his mind.

On the other hand he wrote that "Lincoln has nothing in common with the politicians who follow popular caprice." His detailed portrait of Lincoln shows instant appreciation of the President's unique qualities. How extraordinary that a foreigner and an aristocrat eulogized Lincoln before most of his fellow citizens realized the full measure of the man!

Americans will also delight to read a foreigner's observation on the war and the military leaders. This is how he sized up the contestants in 1865. "On the Northern side, great enthusiasm, enormous energy, and an obstinate will to go forward prevails, no matter what sacrifices may ensue. On the Southern, we cannot but admire an incomparable force of resistance. Broken, beaten down to earth, without arms and without credit, a handful of ruined men struggle on with fanatical fury and patrician pride. The very moment they seem lost, they rise up as though moved by an electric spark. Strange phenomenon this indomitable courage which nothing can shatter and which the greatest misfortune cannot bow down."

To this homage to the American people on both sides in this internecine struggle there is space to add only one more example of his perception. Concerning Sherman's last campaign he writes: "I, who try to observe events impartially, cannot doubt that, at this very moment, he is writing one of the most brilliant pages in Military history."

There is only one reason for regret in reading these fascinating letters. What a pity the Marquis did not reach this country long before January, 1865.—BRIGADIER GENERAL DONALD ARMSTRONG.

WEYGAND'S MEMOIRS

RECALLED TO SERVICE. The Memoirs of General Maxime Weygand of the Académie Française. Translated by E. W. Dickes. Doubleday & Co., Inc. Illustrated; Index; 454 Pages; $6.75.

Towards the end of his life, Marshal Foch evidently had some misgivings about the future security of France. But he had unlimited confidence in his former chief of staff, General Maxime Weygand, so he gave the French people the best advice he could think of: "call Weygand if trouble comes."

Trouble came in the summer of 1939 and Weygand's seventy-two years were no barrier to his country's call. In these memoirs of the three years that followed, Weygand begins with his military-diplomatic mission of coordinating Allied forces in the Balkans and the eastern Mediterranean. But in May 1940, Weygand's talents were needed far more urgently at home. Faced with an unparalleled disaster, the French government in desperation looked to Weygand to handle the legacy of Gamelin's defeat. The new commander of the Allied forces looked things over. His estimate of the situation and his solution are a valuable contribution to military history, although the details have been described many times before. In a few weeks it was clear that the Allied forces were irreparably and hopelessly beaten. Weygand told Reynaud that an armistice was the only way out.

Here begins the most controversial period in Weygand's life, and future historians will have to reckon with what is written in these memoirs. Weygand has suffered bitter denunciation for his role in the defeat of France and for recommending an armistice in June, 1940. He has been charged with being anti-British, a defeatist and a collaborationist. His memoirs show that he was merely pro-French and a realist.

He ignores his accusers. His memoirs are calmly dispassionate, almost disappointingly so. He writes with amazing restraint and objectivity. He cites chapter and verse from the records to pile up convincing evidence that he regarded the armistice as a temporary but absolutely necessary haven, but not the end of the voyage. He acknowledged the ineluctable loss of a battle, but not the war. Weygand's documented and closely reasoned arguments for opposing the Reynaud-de Gaulle project for transferring the Government and the war to North Africa are persuasive and convincing.

In the light of subsequent events, we must today agree with the soundness of these views. Had the French tried to fight in 1940, Hitler would inevitably have occupied that region too, with serious consequences to our future war efforts.

After a brief period in the Vichy government, Weygand, who is obviously no politician, was sent to Africa as sort of proconsul for all the French colonies. His relations with Petain, Darlan and Laval are an illuminative commentary on these men and on French policy toward Germany. Undoubtedly this portion of the book will be the most important as an historical document of the era. Petain emerges from these pages as an unsullied patriot. On the other hand, the appeasers and the collaborationists and the misguided Free French, under de Gaulle, are depicted as harmful to the true interests of France. Laval and Darlan are treated with close adherence to the *"de mortuis nil nisi bonum"* principle, but there is little doubt where Weygand stood in his relations with these two.

The proconsul was too much for Hitler to endure, so he was finally retired to the Riviera as a result of German pressure on the Petain government. He was seized by the Gestapo when the Nazis occupied all of France, and imprisoned in a German fortress. And there finally, Hitler had his revenge on the man who had accompanied Foch to the signing of the 1918 Armistice.

Weygand's place in history was already secure. These memoirs add to his stature as a great soldier and statesman when France sorely needed his services. The tragic fall of France is an object lesson of great importance to the American soldier, as are efforts of that nation to rehabilitate itself after defeat. General Weygand's memoirs offer the best available opportunity of examining both these phases of French history.—BRIGADIER GENERAL DONALD ARMSTRONG.

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A DOCUMENTARY HISTORY OF CHINESE COMMUNISM. By Conrad Brandt, Benjamin Schwartz, and John K. Fairbank. Harvard University Press. 552 Pages; Index; $7.50.

THE MAGIC CARPET. By Shlomo Barer. Harper & Brothers. 243 Pages; Illustrated; $3.50. The story of the migration of the Yemenite Jews from Libya to Israel.

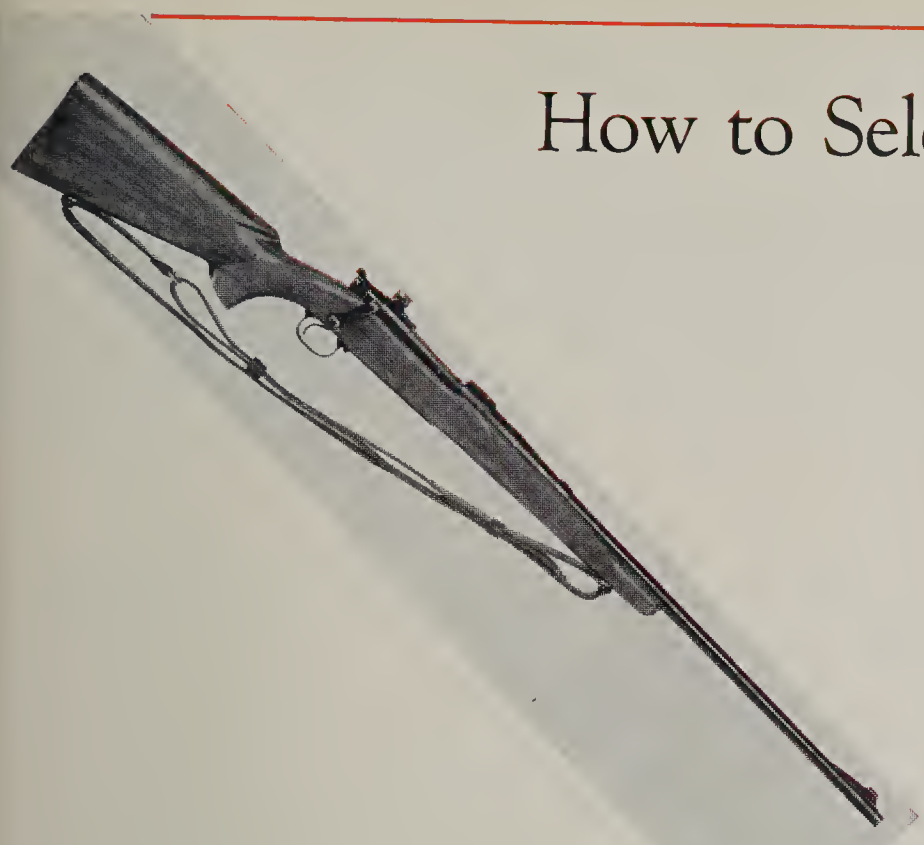
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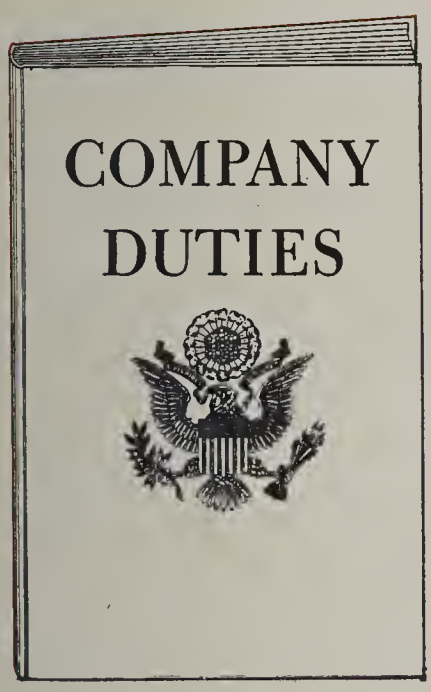
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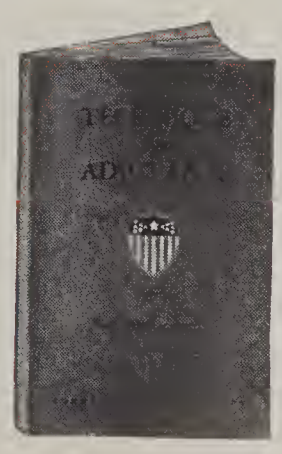
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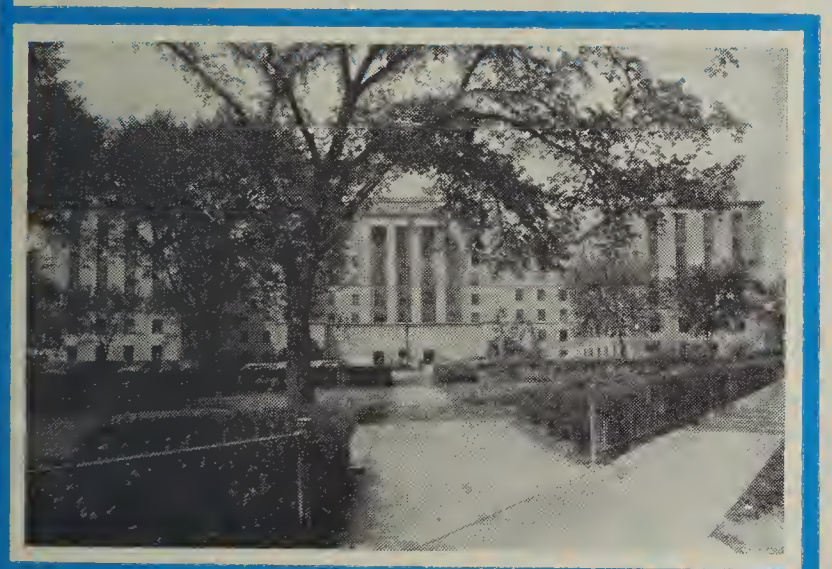
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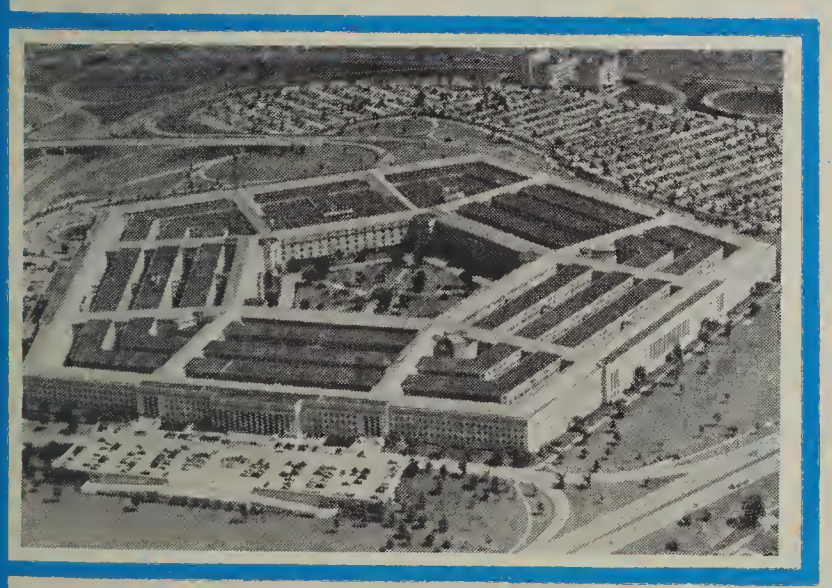
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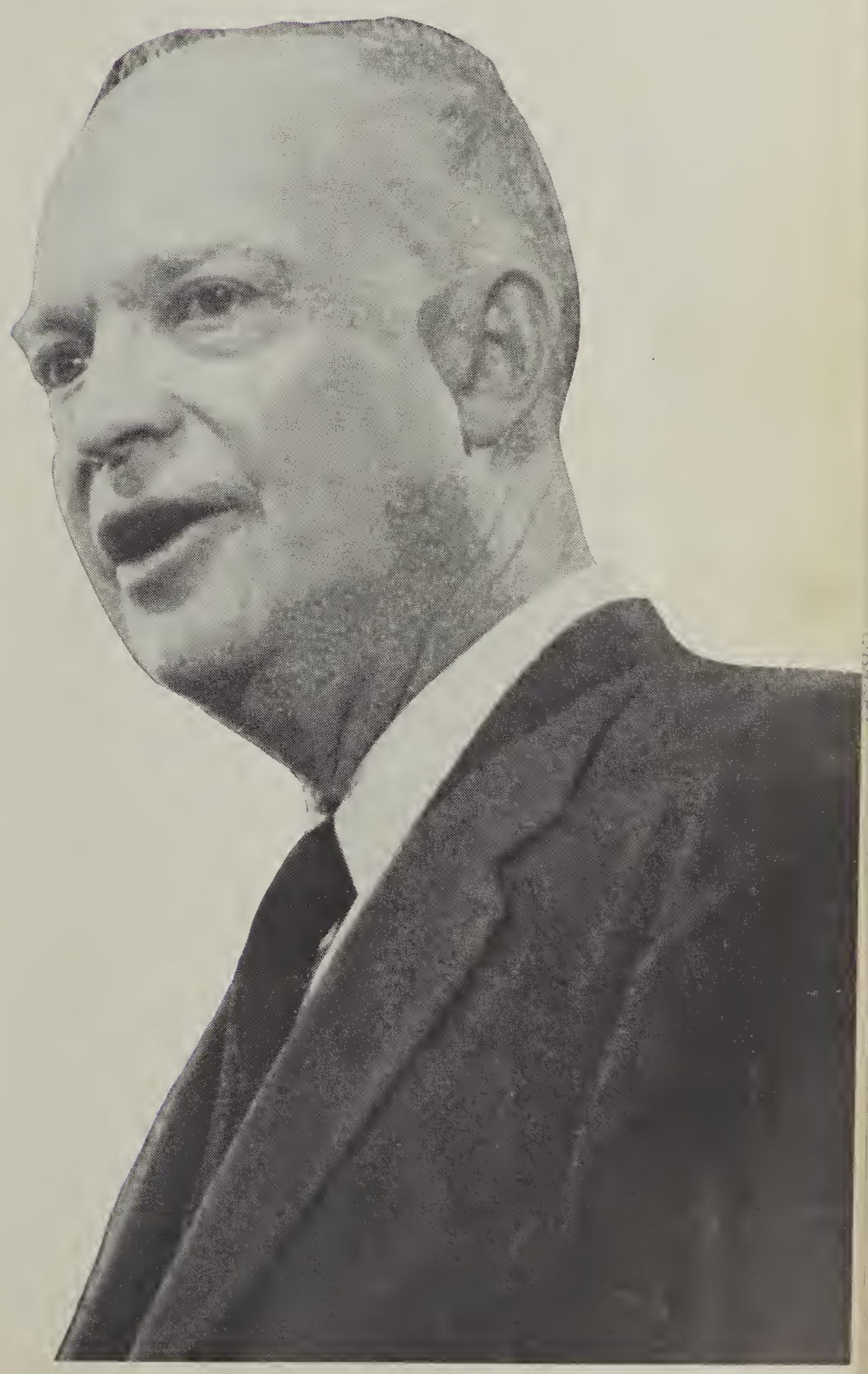
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COVER: President-Elect Dwight D. Eisenhower, the White House, the State Department, and the Pentagon. *(Photos by United Press, Harris & Ewing, Department of Defense and Department of State.)*

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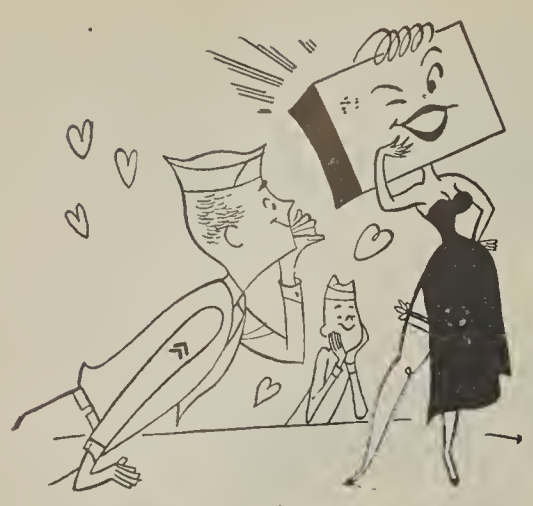
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★ To the Editors . . . ★

"Stress the Fundamentals"

To the Editor:

Compliments on the November issue.

I thought "Stress the Fundamentals," by General Collins, was one of the finest articles ever published. Hope that you can have some more like that.

How about a good article on armor stressing the application of these fundamentals and the close support of infantry and artillery in such a situation?

LT. COL. EVERETT H. RUNKLE
USAR
3517 N.E. Bryce St.
Portland 13, Ore.

• Colonel Runkle's letter typifies many other favorable comments on General Collins's article. We'll see what we can do about a similar article on armor.

Iron Discipline Needed

To the Editor:

I am afraid to speak out critically lest someone think I'm another pipsqueak like Pvt. Hargrove, but I'm mightily afraid that the Army at its lower level is horribly untrained, undisciplined and incompetent.

I say this because I want to see us have a good Army, not because it is unpleasant to me individually.

Contrary to popular belief, the American soldier is at heart a goldbrick, eight-ball and all around yo-yo who would rather do anything than fight. To be sure there are a certain number of priceless youngsters who are hot for bloodletting but they are all too few.

I have seen so many Americans do less than their duty in combat that I am now a violent and unashamed advocate of the cat-o'-nine-tails and the hangman's noose.

Once a soldier becomes used to brutal treatment from his noncoms and the noncoms understand that they are part of an Army, not a Boy Scout troop, then you can begin to treat them decently. By that time they have learned to appreciate leniency. You need not worry about the conscientious soldier—he will stay out of trouble and will be heartened when he sees that the shirkers are forced to do theirs or suffer.

I have seen the American soldier acquit himself with a nobility that is beyond belief. I have also seen many soldiers of other nations doing likewise. But our namby-pamby discipline make us, I fear, the laughingstock of professional soldiers of other nations.

We have the best artillery, splendid engineers and good weapons—everything but superior close-combat troops. We can do much better—and must.

Don't use my name please.

SGT. CHESTY
Ex-187th Airborne RCT
Korea

Marine Tanker

To the Editor:

In regard to "The Maintenance Platoon," by Lt. Col. McFalls in the October issue, I would like to comment and add the views of a company maintenance sergeant of a Marine Corps tank battalion.

My section is equipped with an M32-B3 retriever. Our tanks, except for two dozer tanks, are M46 and M46A1.

Often when using the retriever's winch we also use as many as four snatch blocks, depending on how deep a hole the crippled tank is in. The big drawback is the time it takes to rig all this tackle. And in certain conditions, time is everything.

As for towing, an assist from an M46 is a big help. The slippage of the torque converter is a boon to the retriever's clutch. However, I'm not suggesting that our next retriever be equipped with a torque converter type transmission. They stall out too easily.

Here are a few items I'd like to add to Colonel McFalls's "ideal retriever." An individual engine for powering the winch, an auxiliary generator, air compressor for impact winch, and the boom mounted on a revolving turret.

But leave off any kind of hydraulic gear, "A" frame or otherwise. Maintenance of hydraulic gear is too much trouble.

T/SGT. JAMES L. BELL
USMC
1st Tk Bn, 1st Mar Div, FMF
c/o FPO, San Francisco, Cal.

House Trailers

To the Editor:

As a member of the Association and a serviceman who lives in a house trailer, I would like to request the investigation of possible legislation (if not already under study) concerning the transportation cost of moving trailers when servicemen receive PCS orders. As a first lieutenant I am allowed 7,500 pounds of household goods. The Army will crate and ship them to my new post, at considerable cost to the Government. But families with large trailers have to pay from 18 to 28 cents per mile to have them moved. The government pays them nothing to move *their* household goods.

If the government paid each serviceman living in a house trailer 25 cents per mile, it would no more than equal the cost of shipping that same family's household goods.

LT. ROBERT E. SKIMIN
Fort Bragg, N. C.

Mixed Captions

To the Editor:

In regard to the article, "Why Not SP" by Lt. Col. Moore in your November issue, I believe that the captions under the

pictures of the two 105 motor carriages were switched.

The one at the bottom of the page is the M37 mounting a 105mm howitzer, M4, and the one at the top of the page is the M7 mounting a 105mm howitzer, M2A1, rather than the other way around.

By the way, the 105mm howitzer motor carriage, T98, mounting the 105mm howitzer T96 may be a step in the right direction, except that it falls about nine degrees short of the 75 degrees maximum elevation advocated by Colonel Moore.

Let's have some more articles like that. It was very interesting.

LT. ROBERT L. QUINNETT
Hq 198th FA Bn
Ft. Benning, Ga.

To the Editors:

I suppose you have already received many letters on this but having commanded an M7 battalion in World War II, I can't resist pointing out that on page 31 of the November issue captions on the pictures of the M7 and M37 SP 105 How are reversed.

In any case, more power to the SPs! And isn't that 280mm on page 29 an artilleryman's dream!

LT. COL. W. S. RICHARDS
Hq FEC—CPO
APO 500, c/o PM
San Francisco, Cal.

• The eyes of Lt. Quinnett and Col. Richards are sharper than the eyes of the editor who missed the printer's transposition of the captions.

Civil Control

To the Editors:

COMBAT FORCES JOURNAL is to be congratulated for calling attention to *American Democracy and Military Power* by Dr. Louis Smith, through Colonel Wiener's article in the October issue. No subject is more alive today. I would like to add some comments both on the book and the subject as a whole, and correct some of the impressions, I think, Colonel Wiener may have created. Colonel Wiener's approach seemed to add more heat than light to the subject. He may have considered that he had this license by the fact that he might be preaching to the converted. But others outside of the Army do read COMBAT FORCES JOURNAL, as is indicated by Walter Millis's praise of the magazine in the same issue, and all readers do not share Colonel Wiener's views.

Personally I think that Dr. Smith did a fine job in his book and did it in a moderate manner. He did not provide the answer to the critical problem he posed but he did outline it thoroughly. He catalogued, summarized and evaluated the comprehensive American literature on the subject of government in wartime and has provided thereby a useful documentation of this subject. I think he displayed pene-



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trating insight throughout the book. He defines with concise clarity such abstractions as "economic mobilization" and the "military mind."

His appraisal of us military fellows on pages 110 through 114 is both illuminating and fair and should be a good tonic for all of us.

Colonel Wiener is right in calling attention to Dr. Smith's conclusions. This paragraph, the last in the book, is unfortunate, for it is completely out of tune with the scholarly objectivity of the rest of the book. It may be that this was his starting working hypothesis and when the research did not support it, he still hated to throw it away.

There are other recent books on this subject in which readers of the JOURNAL may be interested. These are: *The Supreme Court and the Commander in Chief* by Clinton Rossiter (Cornell University Press, 1951) and *The Concept of the Civil Supremacy over the Military in the United States* by William R. Tansill (Library of Congress Reference Service, 1951, Public Affairs Bulletin No. 94).

In these books and in Dr. Smith's the subject of the theme is the impact of the military on the civilian aspects of our society. No one today seems to be much concerned with what effect their expanded role will have on the military themselves. American military men achieved their present virtues in a professional isolation under the shadow of traditional Anglo-Saxon distrust. Can they continue to be competent military professionals and at the same time be jacks of all trades in positions of prominence outside their profession to which they are being increasingly called by their countrymen? De Tocqueville recognized the danger in a democracy of the military being contaminated by the civilian point of view. This also should be a subject for study by civilian scholars in these serious days when the military profession is expected to carry an ever heavier and expanding burden.

The professional military man is in the middle of the American predicament of equating our concepts of individual freedom with the authoritarianism that goes with military strength. His growing importance in the military scene requires that he recognize it whether he wants to or not. His countrymen no longer allow him to remain on the outskirts of our national life but nevertheless they still keep wondering if military power and democracy can really mix. For this reason no military man can go wrong in reading Doctor Smith's provocative book whether agreeing with him or not.

CAPT. JOHN D. HAYES
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'Far From Defeatism'

General Eisenhower's statement to the Press at the end of his journey to Korea

I STATED publicly long before we came over here, we came over to learn. We have no panaceas, no tricks of settling any problems. We came over here to get a grasp of the feeling in this part of the world—a look at the situation and a better understanding of many factors that will be important to my associates and myself and to everybody here during the months to come.

Now before I talk a little bit about some of these broader lessons there is one point that has come to my attention that disturbed me a little bit. I heard that some of the units that attended the United Nations review ceremony the first day I was here had come to that field very early and had a long wait and it was cold and miserable, and I can understand very well how those soldiers must have felt.

Now the reason that it disturbed me is this. All my life I have made a point to be on time at any review given by any military formation in my honor. I don't believe in making soldiers wait and so I checked up and I find that I arrived there within a minute or two of the time that I was expected. Nevertheless, I want through you people here to extend my apologies to any soldiers who through some misunderstanding were out in the cold longer than they should have been, because I was highly honored and complimented by their presence. Incidentally that whole ceremony was very symbolic I thought. It was a symbol of the unity that binds together so many nations diverse in their languages, their traditions and their customs but bound together by a common veneration for freedom and a strong determination to defend it wherever it may be threatened. I thought it was a very thrilling experience; certainly it was for me.

Now as we've gone up and down the portion of the battle line we have been privileged to visit, always in the background, always sort of a setting for the whole scene, is the realization of what the Korean people have been through. With war pushing up and down the land, destroying homes and resources, bringing hardships and suffering to these people, it was most remarkable that you could find among their soldiers everywhere such a spirit and élan as was displayed. And that, I find, is merely a reflection of the spirit and élan you find among their people. Mr. Rhee, whom I have been privileged to talk to, exhibits it and shows every qualification of a great leader and all of the others that I have been privileged to talk to in civil or in private life—I mean in civil government or in private life—and the soldiers. You find it everywhere.

Now possibly, therefore, it was not so strange that you met it in every unit that we visited. As you know, we visited every unit, practically, in two of the corps, and it was really something. With regard to the general things that we learned, we learned about conditions, have a better picture of the terrain, and the possibilities —military and economic. We have been privileged, all of us, to talk with the commanders on the spot—the naval commanders, the air commanders, and the ground and logistic commanders—on the economic situation here, so that, all in all, great benefit should result from this kind of a trip.

And in passing let me remark that in line with what has been my ambition in the direction of unification of services here I see the kind of example that I think we should all follow. I believe, and now I'm speaking more distinctly of the United States troops than of others at the moment, the purpose of bringing us all under the same roof, thinking the same kind of doctrine dedicated to the same broad purposes is here going forward exactly as it usually does when the different services get together and get close to the enemy. I thought it was a very remarkable display of unified, co-operative action all the way through the theater.

With respect to the economic situation, it—as you go around—looks almost marvelous that these people can keep up their determination and keep up their health.

It means, of course, that help is going to have to come from the outside for a long time. I'm not going to talk in detail about the military situation—you people are briefed from time to time by the air, ground and naval commanders, and you know exactly what the situation is.

How difficult it seems to be in a war of this kind to work out a plan that would bring a positive and definite victory without possibly running grave risk of enlarging the war. There are many limitations in a war of this kind, but this much is certain: Here we are realizing that freedom is an indivisible thing—we're all engaged in a common enterprise and that common enterprise, even if we have not been able to state its objectives in definite, concrete terms, and if there may be some misunderstandings or differences of opinion with respect to that—still we are all here to see it through. Much can be done, in my opinion, to improve our position—that much will be done.

I THINK that I am going to end this little talk with paying again a different kind of a tribute to the Korean nation. It is in terms of confidence in what I believe they can do with intelligent help given not only for their preservation, but in realization again, as I say, of that principle that freedom is an indivisible thing.

I am far from a defeatist on this business, because I passionately believe that freedom represents a course of life that men prefer to Communism and slavery. Therefore, I believe that on this particular corner—this particular phase of this great struggle between these two ideologies—freedom is bound to be successful. All it takes is continuation of the dedication to common purposes which we have so far displayed, and we are going to go forward with that.

Now, all of you people know who have been with me in the past, it is my common practice to ask for questions after such a conference. This I am not going to do today for the very specific reason it is a large conference, and I could not possibly get around, and the time that I have is limited.

As to my future plans, I cannot give them all to you because—I mean my future plans for the ensuing days—because I believe that the day and hour of my departure from here is still something of a secret. But I will tell you this, that on the way home I expect to meet with different members of my staff and study everything we have learned here and improve the time on the way home by digesting the information so that when the new Administration in the United States takes over next January 20 it will be better able to pursue its policy of supporting freedom in the world and conducting American business so it is always in shape to give the support demanded or needed from us.

To all of you, my thanks for the great consideration you have shown me and my party. I know that the theater here asked you to be very circumspect in talking about this visit, and possibly for that there are good reasons, although for me they are always difficult to see. But, nevertheless, my very deep thanks to you for your consideration. It's exactly what you've given me through the past many years that many of us have been together.

Good-by and good luck to all of you.

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What Eisenhower Said

THE prerequisite for winning any victory is a single-minded determination to get the job done; a single-minded dedication to that job. Without such determination and dedication there can be no victory but only a stalemate, only a road uphill paved with excuse and evasion. So to our task we must bring the quality of vigor.

Now let us talk about the wisdom and skill which we need to prosecute this "cold war" that infects nations all around the globe.

Remember this: We wage a "cold war" in order to escape the horror of its opposite—war itself.

In "cold war" we do not use an arsenal of arms and armaments. Rather, we use all means short of war to lead men to believe in the values that will preserve peace and freedom. Our aim in "cold war" is not conquest of territory or subjugation by force. Our aim is more subtle, more pervasive, more complete.

We are trying to get the world by peaceful means to believe the truth. The truth is that Americans want a world at peace, a world in which all people shall have opportunity for maximum individual development.

The means we shall employ to spread this truth are often called "psychological." Don't be afraid of that term just because its a five-dollar, five-syllable word. "Psychological warfare" is the struggle for the minds and wills of men.

Many people think "psychological warfare" means just the use of propaganda like the controversial "Voice of America." Certainly the use of propaganda, of the written and spoken word, of every means known to transmit ideas, is an essential part of winning other people to your side.

But propaganda is not the most important part in this struggle. . . .

What would such a peacetime of "cold war" national strategy mean?

IT would mean, in the first place, the selection of broad national purposes and the designation within those purposes of principal targets.

Then it would mean this: Every significant act of government should be so timed and so directed at a principal target and so related to other governmental actions that it will produce the maximum effect. It means that our Government in this critical matter will no longer be divided into airtight compartments.

It means that in carrying out a national policy, every department and every agency of government that can make a useful contribution will bring its full strength to bear under a coordinated program.

We shall no longer have a Department of State that deals with foreign policy in an aloof cloister; a defense establishment that makes military appraisal in a vacuum; a Mutual Security Administration that, with sovereign independence, spends billions overseas.

We must bring the dozens of agencies and bureaus into concerted action under an overall scheme of strategy.

And we must have a firm hand on the tiller to sail the ship along a consistent course.

These paragraphs are from a campaign speech General Eisenhower made at San Francisco on 9 October 1952.

COMMAND POST FOR THE COLD WAR

Frigidus Strategicus

IN the months following the outbreak of the Korean conflict several U.S. divisions were sent to Germany to bolster our forces there and to show the world that we were prepared to live up to our NATO commitments. These were military moves and the divisions sailed directly to German ports and moved into training areas of the U.S. Zone.

It was proposed at the time that one of the divisions be disembarked at a French port and routed through Paris where it could parade. The appearance of a newly arrived American division marching through Paris would be tangible evidence of American determination and would help spike the Soviet propaganda that we expect the Europeans to do our fighting for us. Of course, this would have been a more expensive move than the other, but the propaganda benefits could have been enormous. The proposal got short shrift, if any, in Washington and one reason is clearly because our national policy makers have become so involved in the military task of winning World War III that they are missing opportunities that will help win the cold war.

And yet it is our definite, committed policy to fight a cold war in the expectation that victory in it will prevent a hot one.

This failure is largely due to the lack of an effective over-all command post in Washington that can give direction and meaning to all our cold war efforts. These efforts lie in four principal fields: political, military, economic and psychological. Many of our past failures have been due to overplaying one type of effort and underplaying another. Most underplayed of all has been in the area of psychological warfare.

General Eisenhower recognized this weakness in our organization and at San Francisco on 9 October he outlined his plans for creating an organization in Washington that would call the signals for the entire U.S. team.

A number of postwar moves have given us a stronger security system. The three armed forces have been harnessed into a single Department of Defense; the National Security Council has been formed to coordinate political and economic policy and military power; and the Central Intelligence Agency was created to provide the President with the national estimates needed as a base for his decisions. But the cold war requires something still more —an element in the government capable of giving strategic direction to the operating departments and agencies, similar to the guidance the Army, Navy and Air Force receive from the JCS.

A glance at the present system will show why we need a cold war command post that can think and act and direct all of our power towards victory.

REAL security depends first upon effective foreign policies. The Secretary of State is the principal adviser to the President on these matters. The Department of State in close concert with the Defense Department makes the major contribution to the first essential element in assuring national security—the determination of a sound foreign policy.

As the next step, the NSC selects broad American objectives—such as shoring up the Middle East, negotiating for base rights with Spain, or defending Formosa. The applica-

The author of this article has been in a position to observe some of the deficiencies of our organization for fighting the cold war.

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tion of national policy is normally the responsibility of the governmental department or agency having the principal interest in the particular task. The President usually designates one department head as the coordinator of all aspects of a given program. The NSC —the top policy body—keeps out of any coordination of operations.

This arrangement has often broken down. In assisting the President and determining foreign policy, the State Department occupies a special position. In working out its portion of a given policy by traditional diplomacy, it is on a par with other departments and agencies of the government. But as of now, there is no government quarterback, other than the President, who can blend the purely diplomatic moves of State with the military deployment of Defense and the foreign activities of other agencies. This gap is the missing element in our machinery to win the cold war.

GENERAL EISENHOWER proposes to fill that gap—to bring "all our forces at the same time under the same plan on the same target."

This is his plan in broad outline:

"First: We must adapt our foreign policy to a 'cold war' strategy that is unified and coherent.

"Second: In spirit and resolve we should see in this cold war a chance to gain a victory without casualties, to win a contest that can quite literally save peace.

"Third: We must realize that as a nation, everything we say, everything we do, and everything we fail to say or do will have its impact in other lands. It will affect the minds and wills of men and women there.

"Fourth: We must choose a man of exceptional qualifications to handle the national psychological effort. He should have the full confidence of, and direct access to, the Chief Executive. I have suggested in other talks that this function may be best worked out through a revitalized and reconstructed National Security Council."

THE President, of course, is superior to all government departments. But he, as an individual, requires a staff group to help him discharge his command functions over the weapons used in today's cold war. The President is confronted daily with big international problems which he cannot possibly consider adequately. He needs a staff to help him weigh and act upon the military, economic, and diplomatic factors involved in the daily changing world situation.

The NSC as presently conceived does not do this. It functions in the manner of a committee of equals and not as a staff. The fallacy of conducting warfare, whether cold or hot, by the committee method has often been demonstrated. The cold war is in many ways less susceptible to committee management than a hot war. Besides, the Department heads who are members of the NSC are burdened with the operation of large departments. These responsibilities prevent them from being available to work on the problem from the same point of view as the President.

The need for improving the governmental machinery for our psychological and related cold war efforts was officially recognized in April, 1951, when President Truman created the Psychological Strategy Board. Confusion and division of responsibility for the charting of strategic offensives in the propaganda, political, economic fields, and military deployment—which taken together spell the Cold War—were behind President Truman's decision to create a separate agency for that purpose. This new agency, an independent unit, operates through the State and Defense Departments and the Central Intelligence Agency, and reports to the National Security Council. It can coordinate and exhort but never direct the departments and agencies that comprise it.

The experience gained by Psychological Strategy Board can help shape the detailed design of the cold war mechanism envisaged by our new President. Its endeavors to coordinate the psychological operations of the member departments and agencies have conclusively demonstrated that our present governmental machinery is organized primarily for conducting its foreign relations in either a period of genuine peace or in a period of officially recognized war—but not for "cold war."

TO tighten our cold war machinery, General Eisenhower proposes "a revitalized and reconstructed National Security Council." Barring any claim to prophecy, these characteristics are likely to be incorporated in its ultimate design:

(1) The National Security Council will be given the proper authority and staff to bring into a single focus the plans and operations of all U.S. agencies involved in the cold war.

(2) It will assume, absorb and enlarge upon many of the planning functions now charged to the Psychological Strategy Board.

(3) It will provide the President with a strong staff to which he can look for advice and through which he can transmit his orders and instructions to the cold war battle fronts. Actual cold war operations will continue to be conducted by existing departments and agencies.

TWENTIETH century totalitarianism has produced a revolution in the conduct of international relations which combines political, military, economic, and propaganda warfare into a whole, making it more than the sum of isolated functions.

The Soviets believe the crushing of the will to resist or fight is the primary aim of warfare. Consequently, they always give the highest place to means of capturing the "minds and wills of men." Until recently we have sought to keep Soviet aggression at bay primarily with economic or military aid programs (UNRRA, ECA, MDAP), or as in Korea, we have met aggression head-on with arms. We have sometimes forgotten that we can't win unless we appeal to and capture "the minds and wills of men"—unless we use all our weapons on this vital endeavor.

The creation of the Psychological Strategy Board was the right approach. These beginnings, if transplanted to a "revitalized NSC," will provide top-level coordination and supervision in behalf of the President on State, Defense, Mutual Security, and other agency programs required to carry out national psychological objectives. Let's take a quick look at these four major programs.

Diplomacy is the tool by which political influence is applied by one nation upon another. While diplomacy is a

Basic Objectives

OUR foreign policy and our military policy are united on three basic objectives:

(1) We will protect and maintain our form of government and our way of life against any challenge and at any cost. On this point we recognize no limit of expenditure or of exertion.

(2) By every means at our command we seek peace. We will not provoke a war against anybody. And we will not wage a preventive war even against an archenemy. But there is one price we will not pay —appeasement.

(3) We seek peace not only for ourselves but for all others. We therefore support the United Nations. The U.N. flag in Korea is not a mere international symbol. It represents our military policy as firmly as it represents our foreign policy. Soldiers and civilians together we are agreed that world peace is an integral part of American peace.

GENERAL BRADLEY
COMBAT FORCES JOURNAL,
October 1950

major function of the Department of State, other agencies also conduct activity which is political in nature and which should fall within the framework of an over-all plan of political action.

Many elements of government may utilize these political means. The MSA Ambassador in Europe has often been directly involved in political activity in the broad sense by giving support to such undertakings as the Schuman Plan. Likewise, General Eisenhower, while Supreme Commander of SHAPE, had to concern himself with political as well as military affairs. His London speech in July 1951, suggesting a European Army, was one striking example. Military missions, likewise, have political significance. Needless to say, the commercial activities of American airlines and oil companies have political consequences in the strictest sense of the word. The significance of the presence of American oil companies in Saudi Arabia is one bright mark in a troubled area.

The Department of Defense has the primary task to consider the force element in international relations. The military situation, however, can be altered by psychological and economic action outside of the direct competence of the Department of Defense. The scale down of the NATO defense goals for both economic and political reasons is a case in point. Promotion of effective alliances, an essential element in a total military program, can only be accomplished by the most careful support of all other means by which understandings are reached with other nations.

AT least four agencies in the government are engaged in purely propaganda activities. Propaganda means the planned use of all kinds of communications to influence the actions of other peoples. A State Department committee now exists for coordinating the purely propaganda activities of these agencies. So far, this mechanism has not created an over-all propaganda plan, nor fully utilized all the propaganda machinery within the Government. It likewise has lacked the authority to suggest and to coordinate actions by which conditions most appropriate for propaganda exploitation could be created.

American economic programs impinging on the rest of the world, such as Mutual Security, or Point Four technical aid, must also be coordinated with the other major forces through which national policies are executed. The Soviets pitch their whole propaganda in Asia and the Middle East on the promise of economic betterment. In Europe the close connection between our military and economic aid programs is everywhere evident.

In résumé, all departments and agencies have a primary interest in at least one of the four major fields through which foreign policies are implemented. The principal ones—State, Defense and MSA—have a significant interest in fields which are not their primary concern. In the past it has been too often taken for granted that all the activities being sponsored either directly or indirectly by the various departments in a given field represent all that could or should be undertaken. Yet piecemeal planning has left inevitable gaps and duplications in our political, economic and psychological programs. It is impossible for the Secretary of any department to see the inadequacies of what should be a national "cold war" program from the viewpoint of his own portion of the total job. Inadequacies and duplications can be spotted, and specific improvements proposed, only by individuals charged with guiding and monitoring the tasks of the separate departments from an over-all point of view. This fundamental organization fact underlines most pointedly the need for transforming the National Security Council into the President's right arm for running the cold war.

Appointment with History

WE are not trying to remake the world in the image of America. We are not trying to force any man to our way if it is not his. We are not trying to buy peace or bring peace with the sword.

But we are a people who are strong in faith and purpose and moral courage. And we have an appointment with history.

If we can show to all the peoples of this earth by measures like those I have described tonight that their hope is our hope, that their goal is our goal, then we shall keep that appointment with history.

And that appointment is the most important that history has ever made, for it can bring peace on earth.

GENERAL EISENHOWER
San Francisco, 9 October 1952

THERE is a growing awareness in our armed forces that cold war actions are not incidental but directly related to their national defense mission. General Bradley's remark that our Korean POW stand (adopted with regard to the total cold war situation) may help us go a long way toward avoiding World War III, is a significant example.

The POW issue in Korea and other events are leading soldiers to think not only in terms of material defense but at least as urgently in the psychological element. In this view, the whole SHAPE enterprise is as important psychologically as it is militarily. But this recognition places all of our defense efforts on quite a different timetable. We should be less concerned with some hypothetical future conflict, and more acutely conscious of the one we are engaged in now. Nor should we forget that the enemy believes that he might win without a global war ever occurring.

The Defense Establishment is vitally interested in bringing creeping aggression to a halt without a shooting war. But to date, the positive part the armed forces should play in an all-out cold war offensive has never been clearly defined. The statutory obligation of the armed forces to defend this country against military attack is clear. The contribution they should make to the cold war's prosecution needs equally concise definition.

A COMPLICATED but by no means unsolvable problem is how to best harmonize our military preparations for a possible hot war with an integrated national cold war strategy. In the 1953 world the term foreign policy is meaningless unless it intelligently includes the tool of military power. Military deployments abroad are the ultimate expression of our foreign policy. We need a national strategy in the execution of which the political, psychological, economic, and military forces of the nation would all be employed. Without such an over-all strategy the plans and programs developed by civilian agencies of the government and the armed forces cannot be truly effective.

We must continue to plan, of course, to utilize our military power against armed aggression as well as to exploit that same military power to prevent it from ever taking place. America's cold war strategy would create a favorable strategic situation which might by itself bring the decision or else, if war ensues, be best designed to bring about a successful conclusion. If upsetting the hostile communist program becomes a prime purpose of American military strategy, we must seek military deployments that will ensure this aim and which will simultaneously provide sound emergency dispositions. A large order, but not impossible.

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SECRETARY OF DEFENSE

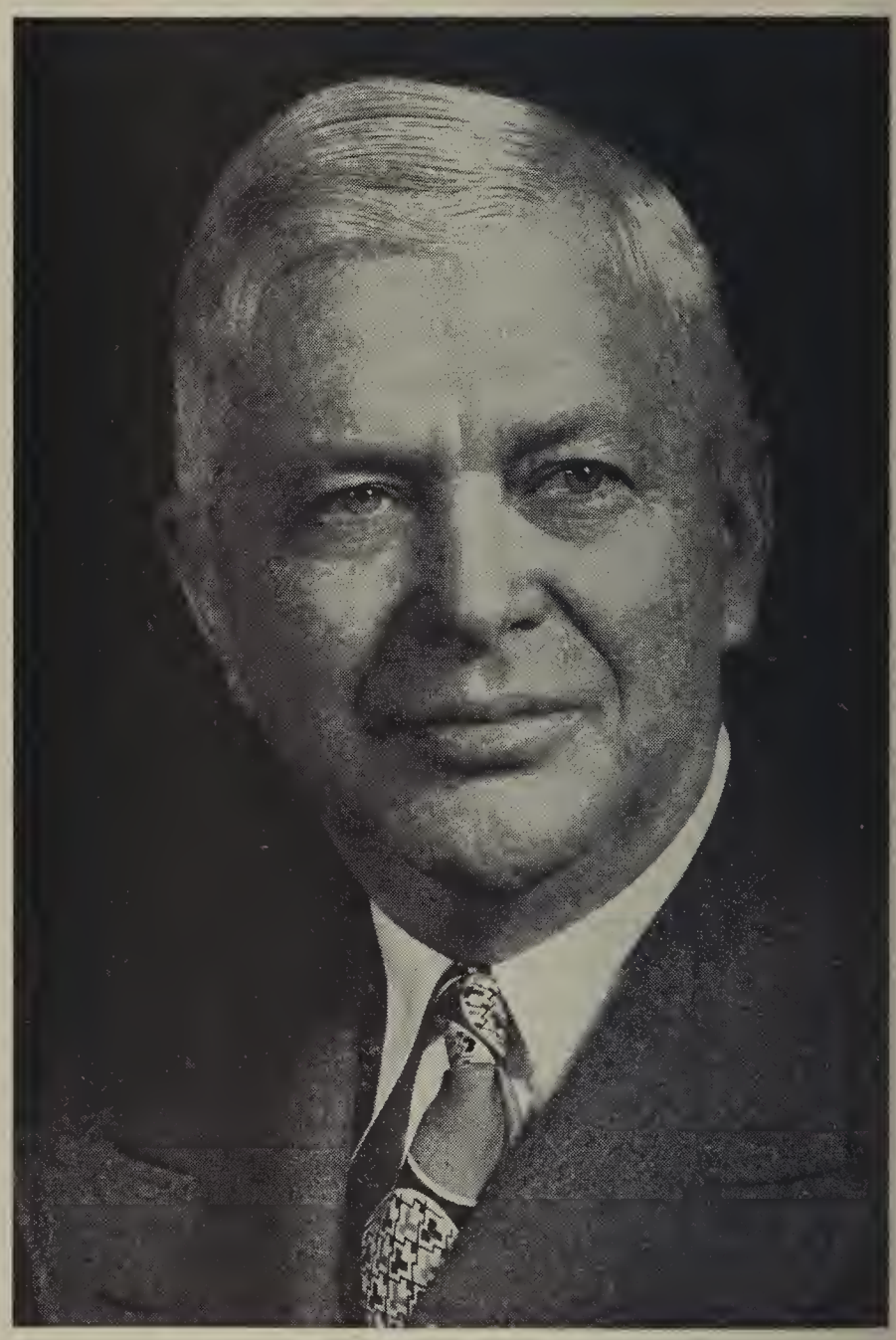
There are no easy black and white solutions for the problems which face this country. How to secure the formation of capital necessary to our plant replenishment, how to secure a tax system which will provide the incentive and the opportunity for the individual acquisition of capital, how to balance between a military organization sufficiently formidable to give any other country reason to stop, look and listen, without at the same time its eating our national heads off—these are segments of a very complex matter which must trouble any citizen who understands it.

JAMES V. FORRESTAL, *18 October 1948*

THE greatest Secretaries of War (and some of the most mediocre) have been lawyers. This can be accounted for in part by the fact that it is easy for lawyers to enter politics and successful political lawyers often find themselves serving in the Cabinet of the man they helped get into the White House. There were sixteen Secretaries of War between 1899 and 1947 when the office was abolished. All but four of these sixteen were lawyers! But if this explains why so many lawyers have been Secretaries of War it doesn't explain why the most successful Secretaries have been lawyers. Indeed some of the greatest of the lawyers were not appointed merely because they helped their President politically. Stanton was not Lincoln's original choice for Secretary of War. Neither was Baker Wilson's. And as we all know, Mr. Stimson certainly didn't support Mr. Roosevelt in either 1932, 1936 or 1940. These three—plus Mr. Elihu Root—were possibly the greatest of all Secretaries of War. Some would add the names of Monroe and Calhoun, and for very good reasons.

During the Second World War a number of businessmen served with distinction in the military and naval departments. Colonel Knox and Mr. Forrestal both came to Washington from the business world. Colonel Knox was a publisher and Mr. Forrestal a financier. Mr. Robert Lovett, the present Secretary of Defense and World War II Assistant Secretary of War for Air, like Mr. Forrestal, was a Wall Street financier. Mr. W. Stuart Symington was a successful manufacturer before he entered the Government as Assistant Secretary of War for Air and later Secretary of the Air Force.

But none of these businessmen—Colonel Knox, Mr. Forrestal, Mr. Lovett or Mr. Symington—has represented that class of businessmen whose profession is really Industrial Management. This is a new profession developed by the growth of corporate business. Many Industrial Managers appeared in Washington during the Second World War. The names of Mr. Donald Nelson of Sears Roebuck, Mr. Charles E. Wilson of the General Electric Corp., and Mr. William Knudsen of General Motors are best known. All but Mr. Knudsen served in civilian mobilization posts where they had close relationships with military and naval officers but not in the military establishments. Mr. Knudsen became a lieutenant general and a strong right arm of General Somervell and Mr. Patterson.



CHARLES E. WILSON

—the President of General Motors Corporation, was an electrical engineer in his early days. He made the first automobile-starting motor for Westinghouse in 1912 and during World War I he was in charge of design and development of Westinghouse radio generators and dynamotors for the Army and Navy. Later he became a factory manager for General Motors and still later a Vice President in charge of expanding GMC's parts and accessories businesses. In this period he mastered salesmanship, production planning, financing and labor management. In 1940 he became acting President and in 1941 President of GMC.

THE talents and skills of industrial managers are very like the talents and skills successful lawyers-Secretaries of War have used. These include the ability to keep complex activities aimed at the common target. The ability to extract good advice from the bad, usable ideas from unworkable ones, to keep many men working together as a team and not at cross purposes.

A Secretary of Defense capable of devising a machine tool for turning out a complicated piece of armament or of devising a suitable strategic plan would fail if that was the only contribution he could make. And the same is true of the Industrial Managers. Some of them were once engineers, others scientists, or salesmen, or office workers. But each proved he had something more to offer before he vaulted to a higher position in his corporation. In this respect the career of the Industrial Managers is something like the careers of four- and five-star generals. They master their basic arm before moving into combined arms and on into the higher and more difficult reaches where strategic goals are determined and the methods to accomplish them detailed to subordinates.

The biggest contribution of the civilian chiefs of the military departments has been largely intangible and can only be called leadership because only that term embraces the many qualities and conditions such men as Mr. Stimson brought to bear on the job.

But it is leadership in the same sense that has marked the Great Captains of our Army and Navy. And it is the same leadership that marks the most successful of the Industrial Managers.

But even though the same qualities of leadership are needed, the jobs are by no means similar. The Secretary of Defense cannot approach his task in the same way as the Chief of Staff of the Army approaches his. And both jobs are unlike the job of the head of a great and complex corporation. This is because the basic requirements of the jobs are unlike.

THERE are those who say that the lack of an overriding profit motive makes it difficult for an Industrial Manager to succeed in Government. Without that profit motive he can't see any final objective. But this is admittedly difficult for others too. As Mr. Forrestal testified with so much tragic eloqence, a Secretary of Defense might be able to conquer the problem of too many things to do in too short a time, but how can he decide on his objective and retain assurance that it is the right objective through hot and cold wars of unimaginable complexity?

In 1939-41 the War and Navy Departments were bedevilled beyond reason because they did not know where they were going to fight, against whom they were going to fight, or even if they were going to fight at all. They not only had to prepare to fight everywhere or not at all but also had to give away their material sustenance to hard-pressed allies. The Japanese and Hitler solved many of those problems on 7 December 1941, but the present enemy is more canny, is less disposed to let the hide go with the hair as Hitler did, and works endlessly to keep us jumpy and unsure of ourselves.

Such imponderables are hardly within the experience of the Industrial Managers, who usually know what their Boards of Directors want: a business enterprise respected by organized labor, competitors and consumers, and earning respectable profits while looking forward to the future.

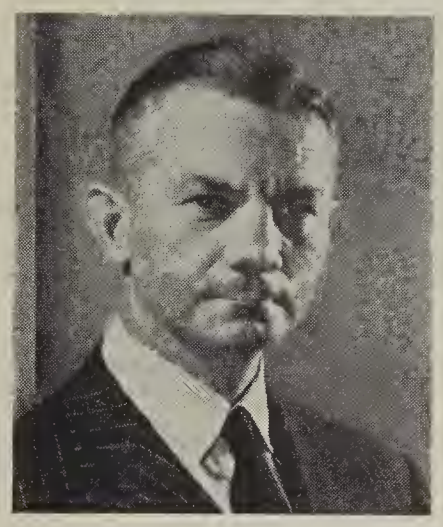
But the imponderables that a Secretary of Defense must face are beyond the experience of lawyers and other professions, too. A well-adjusted philosopher-thinker might view the harder problems of a Secretary of Defense with equanimity and eventually come up with solutions, but he would hardly know how to make the wheels go around while he was cogitating, or how to get the right things done after he arrived at a solution.

A philosopher-thinker might meet the requirements of those who think the Secretary of Defense should be a man capable of hiring people who know how to get things done. But our Government is not organized that way. A Cabinet officer and especially a Secretary of Defense would find that he had no time to think even if he detailed everything to deputies except those jobs that the laws require him to perform. The very physical demands upon him make it imperative that he be a man of action and decision rather than a philosopher-thinker. In someone's immortal words, "he can hire all of the brains" he needs.

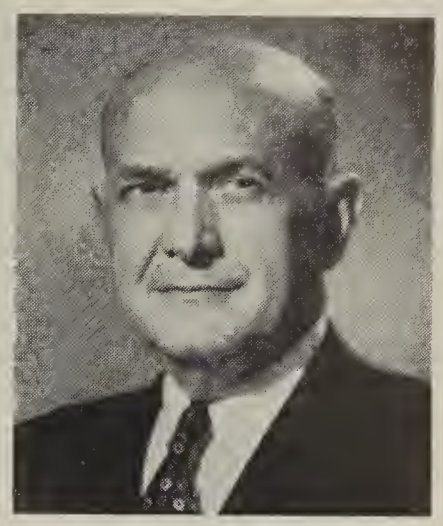
IT is not as simple as that, of course. The tasks and the responsibilities of a Secretary of Defense are difficult beyond description. If you would know how difficult they are, read again, *The Education of Henry Adams, On Active Service,* by Henry L. Stimson, and *The Forrestal Diaries.*

As Mr. C. E. Wilson embarks on this difficult task we wish him every success and we believe he brings to the job the best possible qualifications for it, limited though they may be when viewed alongside the magnitude of the office. And if he is successful we hazard the guess that the day of the lawyer-military secretary is over, and in the years to come, the Industrial Manager and the soldier will work together for the security of the United States.

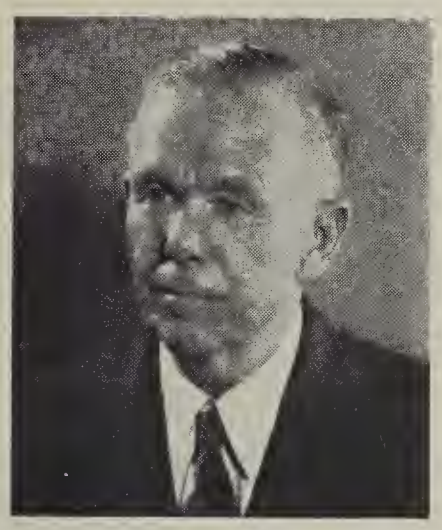
MR. WILSON'S PREDECESSORS IN THE OFFICE OF SECRETARY OF DEFENSE



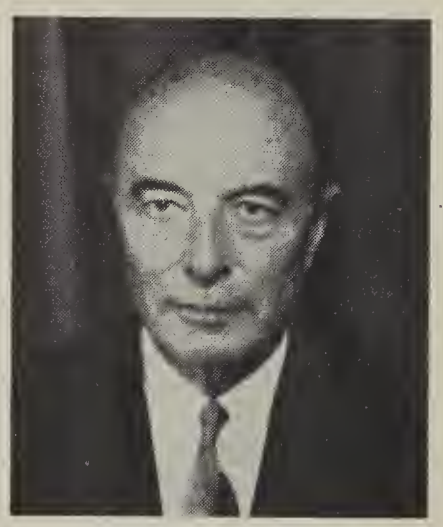
JAMES V. FORRESTAL



LOUIS A. JOHNSON



GEORGE C. MARSHALL



ROBERT A. LOVETT

UNIVERSITY OF ILLINOIS

Unified Principles and Procedures

Brigadier General A. S. Newman

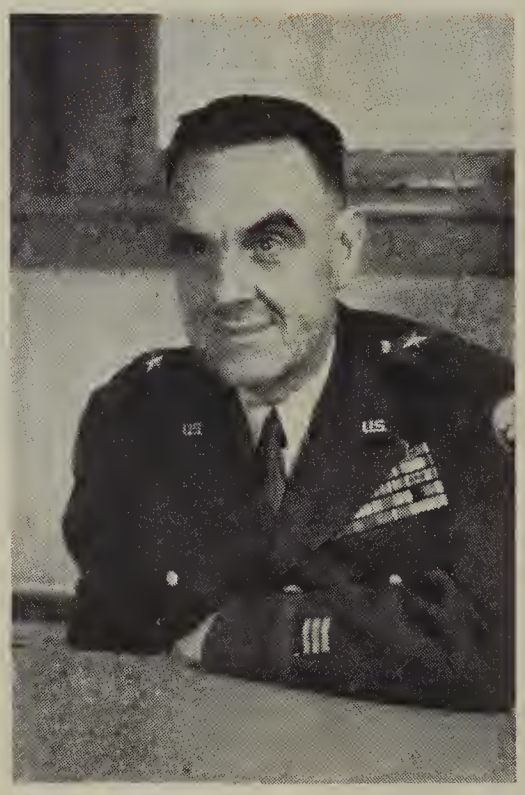
A Unified Command is like a marriage: The principals must learn to give and take for the common good.

Brigadier General E. J. McGaw, who was Commander of the Iceland Defense Force at the time Brigadier General Newman (then colonel) served as its Chief of Staff, wrote of this article:

"I concur in the unified principles and procedures summarized in this article. To some it may appear that the principles are rather briefly stated to cover such a wide field. But I think Colonel Newman's decision to keep them brief is a wise one.

"The broad principles will apply in general to all Unified Commands, while a more detailed breakdown would lead to many exceptions and special cases.

"I commend this article to the readers of COMBAT FORCES JOURNAL as a springboard for their own thoughtful consideration of the principles and procedures required for successful unification."



MANY of us have a vague notion that the word "Unification" means integration of the three services and that it's something for generals and admirals to worry about. We also understand that Unification is supposed to save money at the expense of complicating budget and supply procedures. But many of us feel that as fighting men we need not be concerned with what Unification is or how it works.

I am not an expert on Unification, but as the commander of an airborne infantry regiment who was catapulted overnight into the job of chief of staff of a Unified Command, I learned a few things the hard way about one part of Unification which may be of interest to you. Specifically, I was the chief of staff of the Iceland Defense Force.

To make Unification work there are two facts that must be kept straight: one is the staff and command principles under which a Unified Force operates, and the other is how actually to make those principles work.

Although we had to work out principles and procedures simultaneously in Iceland, an analysis of the lessons learned in our operation should begin with an examination of the principles.

Of course much work has been done and is being done on manuals to govern the operation of Unified Commands, but of necessity these can only be developed through experience. The experiences of the Iceland Defense Force are a part of that development process.

We had three main references:

(1) Specific directives for the establishment of the Iceland Defense Force. These included assignments of missions, some delineation of responsibilities and procedures—but of course these are classified and cannot be quoted.

(2) The basic Command Plan for the operation of Unified Forces, which is also classified and may not be quoted.

(3) A manual prepared and used for instructional purposes at the Armed Forces Staff College, under the title *Staff Officers Manual for Joint Operations.* (This is an excellent guide for the organization of a Unified Staff, but is limited in its scope and the amount of detail included. It has been of great assistance, however.)

After leaving out all classified matters in the references, and examining our experience in Iceland for lessons which may be of help to others, there is still much that can be summarized to clarify the unified picture at the working level.

TO begin with, there is nothing complicated or obscure about the primary command channels—it is the *degree of command* exercised by the various headquarters and agencies concerned that is difficult (extremely difficult) to define so that all concerned have a meeting of the minds.

In the case of the Iceland Defense Force, the command channel starts with the Joint Chiefs of Staff, goes to the Chief of Naval Operations as the executive agent for the JCS, then to the Commander in Chief Atlantic (a Uni-

BRIGADIER GENERAL A. S. NEWMAN, Infantry, is now on duty with the 82d Airborne Division at Fort Bragg. He commanded a regiment of infantry in the Pacific during the Second World War and after the war became a paratrooper. He commanded a regiment of the 11th Airborne Division at Fort Campbell before going to Iceland as the chief of staff of the Iceland Defense Force. He has been an occasional contributor to this magazine for many years.

fied Commander), who has delegated his unified responsibilities in Iceland to the Commander, Iceland Defense Force, whose immediate subordinates are the major commanders of the three services within the Iceland area—Army, Navy, and Air Force.

But the "air line business" of Keflavik Airport, Iceland, is under the Commander, Military Air Transport Service (another Unified Commander)—so part of the forces under the Unified Commander in Iceland (who was Brigadier General E. J. McGaw of the Army; since succeeded by Brigadier General Ralph O. Brownfield of the Air Force) are to a very great degree responsible to Major General Joseph Smith, USAF, the Unified Commander of MATS.

Nor is this all. Keflavik is a great international commercial airport, thus subject to international agreements. It is also Icelandic territory, subject to Icelandic law.

The adjoining is not an official command chart, but is a schematic representation of the general organization for the Iceland Defense Force.

Obviously, the chart could be endlessly complicated by adding more agencies and various types of lines—each of which would indicate a different kind of command, staff, or technical responsibility.

Not shown, but almost always present in a Unified Command, are international diplomatic and political angles.

It thus is abundantly clear that all Unified Command charts must have an inherent *flexible* quality, which it is impossible to reproduce in lines and words on a printed page.

Obviously, this is a special situation—but it illustrates a major point. Unified commands cannot be reduced to a set form like a regiment of infantry, a Navy ship's complement, or an Air Force group.

Added to these special circumstances is the fact that when you integrate forces from the Army, Navy and Air Force into a Unified Command, the assignment of every individual to the Unified Command is of necessity *temporary*—but his assignment to his own service is *permanent*—therefore he not only retains a channel of communications to his own service on certain technical, administrative, and specialized logistic matters . . . but a basic loyalty quite naturally remains with his own service.

This can and often does complicate matters. The chart on this page outlines the problem schematically. If you don't agree with the way the chart is drawn,



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that is not surprising, and simply illustrates one of the difficulties within a Unified Command—you probably can't draw a chart that everybody would OK!

That brings us to another unified principle: individuals in command and staff positions must not only be professionally qualified in their service, but they must have facile minds that quickly grasp the varied problems of other services and agencies—and they must be mentally *flexible,* willing to compromise on occasion. If everybody insisted that everything be done the way it was done in *his* service, the result would be a continuous series of silly tugs-of-war.

The principle in small things should be that the man who does most of the work should be allowed to do it his way. If there is no scrabble over small things you'll get a smooth day-to-day operation.

PERHAPS we have gone far enough to ask why we have Unified Commands instead of joint or combined commands as in the past.

The answer seems fairly clear. The Second World War proved that the development of modern weapons, transportation, communications, and fighting techniques required a speed in attaining integrated offensive or defensive operations that made mandatory more coordinated centralized control under one man within certain areas. This is not only true in minor local actions, but also in far-flung operations.

We are still uncertain of all details —but Unified Commands are practicable, workable and here to stay.

Thus we come up with another principle: The initiation of Unified Commands is a major change in military organization, and such changes in the past have resulted in disagreements at all levels—so that when we meet them now we should accept adjustments as something normal and to be expected. Once they are viewed in that light, it is easy, by the exercise of reasonable forbearance and objectivity, to resolve disagreements. This brings us squarely up to the fact that when individuals refuse their share of readjustment, of give and take, of objective examination of the other fellow's problems—then they are not qualified for duty in Unified Commands and should be replaced.

Of course there are a number of secondary advantages to Unification, aside from operational efficiency. It reduces overhead, and saves duplication and waste—but procedures for this are still very much in the throes of experimentation and development. In the normal case, the service of primary interest will exercise both command and logistic responsibility, but there are departures from this rule—and the Iceland Defense Force was such an exception.

A basic principle of organization within a Unified Command is the use of deputy commanders from the two services other than that which furnishes the commander. In this way the commander does not have to go to a staff officer on command matters that concern a service other than his own. In addition, the presence of deputies to augment the command authority of the commander insures a more positive integrated command posture within the Unified Command. It is an intangible thing, but of great importance.

EXPERIENCE proves that more staff officers are needed on a unified staff than in a command of similar size of only one service. There are more varied and complex administrative problems, because in general the individuals of a Unified Command are still subject in great detail to the regulations of their own services—thus it is not only necessary to have wide and varied operational knowledge of all three services on the staff, but a similar requirement exists for the three services administratively. It is therefore a great mistake to limit too much the number of officers assigned to a unified staff, especially when administrative and organizatonal procedures must be established from scratch.

Another thing that needs to be emphasized again and again, is that a good man is a good man—no matter what the color of his uniform.

Every man of all three services must feel that he and all members of his service are not being discriminated against in any way. Each man—Army, Navy and Air Force—must be on a share-and-share-alike basis, and must *feel* that way.

Here is a small illustration:

The main installation of the IDF is Keflavik Airport, and the air base group which operates it furnishes "common services" for the Army, Navy and Air Force. One of the facilities established was a noncoms' club. Initially, it was referred to as an Airmen's Club—which made Army and Navy men feel left out.

Actually, the Air Force uses the term "airmen" in the same way the Army uses the term "enlisted men," so it was a misunderstanding based solely on the use of words—not intent. (The selection of an appropriate name has more angles than you might think—and at this writing the official name is the Keflavik Airport NCO Open Mess.)

Another thing that bears on this same principle is the material but intangible difference in the personal relations between staff officers within the three services. The success of a unified staff (at least for the foreseeable future) depends more on procedures worked out between individuals than on fixed regulations. It is evident therefore how important is the principle that staff officers of the several services *feel* they are all on the same footing with their chief.

A PROCEDURE of first importance, in my opinion, is that command be exercised through subordinate commanders by a much greater delegation of authority than is normally the case within a single service. Orders should be more general in their scope, and keep to the main issues—allowing the subordinate commander to work out details of compliance. There are many reasons for this, but two are:

(1) A unified commander does not have the technical knowledge to issue orders in as great detail for the three services, as he could for his own service alone—and he should not be tempted into letting relatively junior staff officers spell out detailed orders in his name to commanders of wide experience in their own service.

(2) There is an intangible psychological factor involved. Subordinate commanders of one service do not like a senior of another service breathing down their necks and supervising details they think they know more about than he does.

The answer lies in orders that delineate the action desired *only as far as necessary to get interservice coordination.*

A corollary to this: do not issue orders on procedural matters unless variations within the several services cause conflict, or reduce the effectiveness of the command as a whole. Instructions should not be issued just to get uniformity. *Unification* does not mean *integration.*

The tone of orders issued by a unified commander is important. Within any one service the tone of command changes as the levels of command go higher—an Army corps commander does not give orders to major generals commanding divisions in the same detail or in the same tone used by a regimental commander to his subordinates. A unified commander should consider this carefully—both in written and oral orders.

It should never be forgotten, though, that within the province of a unified commander's authority, his orders are just as binding as those of a commander

within a single service. It is not only important that the commander himself should understand this clearly—but every member of his staff and all subordinate commanders must study and thoroughly understand the degree and scope of unified command authority.

ANOTHER thing to keep constantly in mind is that every man in a Unified headquarters must listen closely to differences of opinion, especially if they are voiced by an officer of another service. Your previous training and background may cause you to come naturally to one decision, while the same set of circumstances might cause an officer of another service to come to a different conclusion—and he may have good reasons that are beyond your experience. Listen to his reasons, give him your reasons and then the two of you may find that, where three services are concerned, neither of you is right.

The importance of giving great weight to the opinion of the man with specialized knowledge in another service is obvious. If the problem is one of air lift, the Air Force view can not be lightly set aside by an infantryman. If ship movements are concerned, what does the Navy man recommend? If ground combat plans are being made, the Navy and Air Force should listen carefully to the Army ground combat technician.

And when the Army, Navy, and Air Force commanders all have different views—the unified commander must decide which of the calculated risks pointed out to him he will take.

Many small SOPs must be published for the guidance of a unified staff that are normally covered in any one service headquarters by service custom, or by the detailed regulations of that service. With three services in one headquarters there are almost always three ways of doing things. On the Iceland Defense Force staff we used this to our advantage, by selecting the best of the three procedures. When there was a choice and where it was a matter of opinion, we used the form with which the most interested staff officer was familiar. For example, since we had an Air Force adjutant general, we used his way of numbering memorandums and special orders; with an Army headquarters commandant, we use the Army morning report.

Sometimes we used more than one form. An illustration of this is the format used in official letters. The Navy has by far the best system, but we set the letter up in the form used by the headquarters to which it was addressed.

Operations orders are not a problem. The *Staff Officers Manual for Joint Operations* is our guide. Service components use their own manuals.

When I was chief of staff, we used the Army buck slip and routing system. We did not try to write an administrative SOP from scratch. From time to time we published staff memos on office procedures that required regulation.

TWO of our biggest problems revolved around budget planning and logistical support. In general the Air Force, through MATS, as represented at Keflavik Airport by the air base group, was responsible for common services—which includes everything from rations to a centralized TI&E program; from utilities to movies and post exchange service. One of the most important single items of common services was construction.

Of course all of these are also tied into budgeting—and the unified commander is responsible for coordinating the service budgets. This sounds simple, but it isn't. Many of the budget items start at higher service headquarters outside of Iceland—because each service must budget for construction and other items used exclusively by that service.

Without going into detail, there are two salient factors affecting budgeting, logistic planning, construction and operations planning. One is the need for a plans section, which we did not have initially but which we came to consider a necessity. The other is to have this plans section large enough so that at least one senior officer from it can be traveling much of the time to various other headquarters to coordinate papers, clarify details, and to reduce the time lag.

This time lag is a tremendous obstacle. Some papers must go not only to the three Departments, through channels, but may also go to the Department of Defense or to the Joint Chiefs of Staff before a final decision is reached. I can not emphasize too strongly that there is no substitute for experienced and able officers to travel for planning liaison—and, incidentally, to look for papers that somehow get sidetracked.

Much could be written on the problem of getting the necessary funds. The big thing to remember—to keep constantly in mind—is that there is no semi-automatic budgeting for your needs, as in established military installations. When you start planning to do something, you had best start out by doing something about getting the money—because nothing is going to happen until you have the money.

In addition to outlining things to do, there are a good many things not to do in a Unified Command.

Do not issue administrative orders until the regulations of all three services have been consulted. For example, surveys are handled in vastly different ways by the three services, and you can not unify an administrative procedure of this type short of Department level. Confine your orders in such cases to how to implement the regulations of the various services. Efficiency reports are a similar problem.

About the best suggestion on what not to do is: When you see something being done, *by a member of a service not your own,* which you consider wrong—don't go off half cocked. Maybe that is the way to do it in his service.

The professional military presence of individuals also varies in the three services. To give you an idea, here are some characteristics I have noticed: The Army officer tends to be specific and direct in his orders, and expects prompt compliance (a great virtue in ground combat); the Navy man often appears dignified and remote (the captain-of-the-ship attitude); the Air Force is more relaxed and free and easy (don't tense up at the controls).

IF we take all the principles and procedures discussed here and reduce them to one over-all principle, we find the answer to this question:

In general, what does it mean to be Unified?

It means that you serve under a new organizational and command principle within the Armed Forces of the United States. There are many directives on the subject and many varying ideas, but the basic principle is simple.

When elements of the three services are united under a Unified Command, the fundamental foundation is the same as that in marriage. They are united for their common good in a special way which deprives each of them of some rights and privileges—yet at the same time reserves to each of them certain rights and privileges.

As in any marriage, there always will be problems. Most of these problems develop in the early stages of the marriage, and there must be a period of adjustment in which all parties participate. Unfortunately, the initiation of a Unified Command does not begin with a honeymoon.

Unification is a challenge. It is hard to accomplish. But when we meet the challenge individually and collectively the result is bound to be the greater security of our country.

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DOES WAR WORRY YOU?

We can't afford the fears and misconceptions that we all hear about the enemy, so let's face up to the facts—they aren't as bad as we sometimes think!

Lieutenant Colonel Robert B. Rigg

DO the 175 divisions of Soviet Russia worry you unnecessarily? Can a U.S. tank battalion (medium) combat a medium Soviet tank regiment on equal terms? How many Red soldiers do you feel capable of holding off in combat? Surrounded and cut off, would you be inclined to surrender, or fight your way out?

We can't carry A-bombs in our hip pockets, but we've got to carry some tough self-confidence with us or we'll be beaten. Mental toughness is as important as howitzers—both have to be built, and then put to use. The high incidence of our mental cases in World War II revealed that for all our claims to greatness, too many Americans lacked a sufficiently tough frame of mind. There was neither time nor sympathy for the mental misfits in the Red Army during World War II; the trend has not changed any in favor of the psychiatrists—if the Soviet Army has any.

We can each well pause to ask ourself, "How mentally prepared am I for more war?" Of the surrounded and cut-off GIs in Korea, none to date has turned guerrilla, but a few with great credit have fought their way out rather than to raise their hands to almost certain death and slaughter. We need more of this breed.

In the face of foes who outnumber us we cannot risk becoming victims of fear and misconceptions nor should we be mesmerized by certain German military experts who rub the lamp of their own defeat to produce that frightening genie —the "tough and unbeatable Soviet soldier."

Unfortunately many misconceptions have been bred or sustained since World

LIEUTENANT COLONEL ROBERT B. RIGG, Armor, is presently on duty in Germany with an armored outfit. From 1943 to 1948 he served as an observer with the British, Iranian, Soviet, Iraqi, and Chinese Nationalist and Red armies. In 1946 he spent two months in a Chinese Communist prison for having observed them too closely. He is the author of *Red China's Fighting Hordes*, and is an occasional contributor to this and other military magazines.

War II. There has been the view that the average American is a super mechanic and that all the Army needs to do is to put him in uniform, give him a screwdriver and heat tablet and he will become jet-propelled. Conversely, the Soviet soldier has been profiled as a stupid swamp-animal who lacks initiative and has so little mechanical ability that he can't service a can of Sterno. There are also misconceptions about the Asiatics. Until the conflict of Korea many "experts" propounded the theory that Chinese and Koreans didn't know how to take care of complicated weapons like jets and tanks. There is the view that Asiatic officers do not understand logistics because their supply columns consist of bullcarts and horses. However, their tanks still run on modern fuel and shoot killing shells even if contaminated with manure en route. We should realize that the Asiatic must resort to his own methods in accordance with his own scale of values and equipment. This is not to suggest that we lower our own logistical sights, but let us recognize and examine facts and get rid of some ideas that are as false as the once-held theory in America that a million men will spring to arms overnight.

THERE are some good reasons to be concerned about the manpower ratios that oppose us, but we shouldn't be frightened by the millions of males in Communist countries. They are not all Communists. I have seen Asiatic hordes pour into battle and they are not any more willing to do so than other men. Some are less so. I have seen Chinese Communist divisions retreat in fright when there was really no threat before them. In general, Asiatics know when to throw in the sponge. When the going is bad they surrender in large numbers. There is of course a hard core of men who do not. Some can be violently tough. None is a pushover. But they will surrender—as in Korea after the landing at Inchon.

The Chinese Red Army never militarily licked the mass of Chinese Nationalist armies in the Civil War. The Reds conquered because Chinese Nationalists defected in droves. Big though it is, the entire Red Army of China is *not* a volunteer army. Until Korea, it had never faced modern fire power on the ground, in or from the air. The initial prisoners we took confirmed this in their statements. The Chinese Red Army *can* be licked!

Soviet Turcoman soldiers raised their arms high and quick in surrender to the Germans who in turn converted them to the Axis cause as soldiers. We took them prisoners in Italy. Other Soviet Asiatics proved none too good as die-hard devotees to the Red cause.

We can never win a campaign or a war if we let the *size* of an enemy "get us down." All of us must discard this mental handicap. We'll probably always be outnumbered. We must get used to the fact, and proceed in confidence from there. We can achieve local superiority in many strategic places, and again, this superiority may not be just in men. Air power, like naval power, does not spring from the sheer number of males within a given country.

DESPITE common knowledge that campaigns and wars of today are won by combinations of joint forces, the current practice is to measure an opponent in terms of divisions. The term division is as obsolete as the term "phalanx" insofar as it denotes strength on the modern battlefield. What is a division? In our own army it is 18,000 organized and equipped men. Nowhere in the world are there better designed combat organizations for the number of men involved than our infantry and armored divisions.



The Soviet Army has a reported 175 divisions. Does this mean 175 times 18,000? It does not. Soviet divisions are of three main types: rifle, tank, and mechanized. They range between ten and twelve thousand men each, with cavalry divisions of a strength less than 5,000. It is obvious that in terms of armament and numbers our division would occupy a frontage almost double that of a Soviet rifle division. There are other strength factors which could place our division more or less on par with two opposing Soviet ones. But, to the soldier in combat, the fact that two Red divisions are opposing his one, could be mentally disturbing unless he knows that the term division has many meanings. The same is true of Chinese armies. They are not armies, but corps.

We tried to maintain our divisions at nearly full strength in World War II. The Soviets tended to fight all their divisions down, but the label of division stuck even though some divisions only numbered a few thousand.

Earlier I posed a question about the combat equality of a U.S. medium tank battalion and a Soviet medium tank regiment. Without entering into the details of unit organization or tank versus tank, the answer to the question is that our battalion is superior, mainly because it has more tanks than does the Soviet regiment. Here is Communist nomenclature at work, and it applies to other units as well. Comparisons must be made in respect to actual strengths, and not titles. The Chinese Communist and other Russian satellite armies also give high-sounding titles to small units. We should not let titles scare us. That is what they are designed for. The falsity of Communist nomenclature and definitions should be known to us by now if we simply view the Red trend to give new definition to "democracy."

There have been numerous profiles made of the Soviet soldier. You have to know your author to be able to accurately judge the real truths. Too many of these sketches are overgeneralized or lead to erroneous conclusions because they seek to lump in one individual the varied characteristics of millions.

With a battle background of bitter experience, death and defeat, the Germans are inclined to build the Soviet soldier into a super animal. From this enduring monster of German fears one can range down to some American descriptions of the Russian, who is characterized as a dull sloth lacking in imagination and initiative. Considering the number of bridges the Soviet soldiers built out of locally "scrounged" materials, one could safely generalize that Soviet soldiers are possessed of considerable initiative and not a little imagination. It is important, in this respect, to orient our soldiers on the actual history when hundreds of thousands of Russian soldiers surrendered easily, and then equal num-

(Continued on page 28)

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Promotion Problems

Readers write in, finding fault with the article of the same title in the November issue and asking, "Find out why I didn't get promoted."

FEW articles in recent months have drawn as much mail as "Promotion Problems" in our November issue in which the editors attempted to spell out "personnel's" difficulties in establishing promotion policies. If the letters did nothing else they certainly confirmed what is no secret: that there is a great deal of discontent and some misunderstanding of current policies.

A few of the letter writers individually designated the Editor of COMBAT FORCES JOURNAL as their agent to go to the offices of the Career Management Division to study each officer's record and talk over the record with CMD officers. The Editor has accepted these requests and stands ready to act as the confidential agent of any officer on a similar assignment so long as the number of requests doesn't completely swamp him.

The Editor has seen our present G1, General "Tony" McAuliffe, whose office has received many more letters of the same type. General McAuliffe says that he will go into any officer's promotion situation *with that officer in person.*

In the following paragraphs we shall quote from a few of these letters in an effort to show the nature of the complaints about promotion policies and the present attitude of many officers towards them. Each letter has been answered personally, giving the writer all of the information about his own case that we have been able to obtain.

Infantry or Armor

"I am one of the 26 in the class of 1934 who were jumped over in the promotion of temporary colonels. I wish particularly to find out if my being in the infantry played any part in being jumped and if I would have fared any better had I been in Armor (in which I served during most of the war).

"Will this pass-over be continuous up until the time I become eligible for permanent promotion?

"What action should I take with a view to alleviating this situation?"

Point of Origin

"When the 1951 Selection Board list of those picked for permanent colonel in the Regular Army was published, I noticed that two West Point classes were picked almost en bloc, and that hundreds of integrated officers had been passed over. I looked up the records of the five general officers constituting the board, and found that three were West Pointers and two were graduates of Annapolis. Thinking this would never occur again, I did nothing about it, but the 1952 board selected the Class of 1930 almost en bloc, and even went back and picked up a few West Pointers who had been passed over by previous boards.

"The composition of selection boards should conform to the list of candidates. If 100 West Point graduates and 400 non-USMA regulars are up for selection, the selection board should be composed of one USMA general officer and four general officers who are not graduates of the Military Academy."

No Complaints

"I haven't a complaint. When I joined the Army in the 1930s I expected to be a captain in 1952 but I am a lieutenant colonel and have been for almost eight years.

"I would like to know what the chances are for my promotion to full colonel. I personally would be very happy if all temporary promotions to full colonel were made on the basis of the permanent list. However, the powers have decided otherwise and I note that some officers junior to me on the promotion list will soon be my senior. I hope this will not continue!

"Because I was unfortunate enough to be in a T/O outfit overseas in the early years of World War II, I didn't get a temporary promotion early enough to become eligible for consideration for the last full colonel list. Neither my permanent nor my temporary rank qualified me. My commander tried to get me in as one of the five per cent to be promoted without regard to age or seniority, but it was turned down with the explanation that the five per cent was only to take care of aides.

"Apparently there are quite a few of them."

Integrated Officer

"I feel strongly that the Army has broken an implied promise to officers who were integrated on age, namely that age would be a determining factor in future promotions.

"I am approaching 37 years of age, a major for just two years. I rank ahead of the USMA class of 1941 in permanent rank but have no hope of promotion, whereas members of that class (all younger than I am) are almost all lieutenant colonels.

"The switch of the promotion policy to temporary rank is responsible.

"During the war I was with a division that saw but a few months of combat and had no casualties to speak of. I went through all battery officer jobs and became a battery commander. All of my record was superior and I was integrated with the first increment in July 1946.

"The perpetuation of wartime promotion achievements as a basis for promotion now is an injustice to me. I am now one full grade and more behind my contemporaries with no hope of ever catching up.

"I get so depressed at times over this situation that I would resign except that I know I could never be happy outside of the Army. And yet there is the stubborn fact that I am five to ten years behind many officers of my own age."

Incentive and Ambition Gone

"I was a first lieutenant in Korea on temporary duty status before the outbreak of the Korean Conflict. I remained on the same assignment until August 1951.

"After U.S. units were committed in Korea an order was issued which made company officers who performed duty in the next higher grade for 30 days eligible for promotion. I was recommended for such promotion in July 1950 but the papers were turned back because I was on temporary duty status. Therefore, I was not finally promoted until December 1950. During this period I was filling a major's T/O vacancy.

"Six months later I was highly recommended for promotion to major but G1 turned it down, despite good indorsements all along the line. The reason given was there were too many majors in my basic branch in the Far East Command at the time. *The job I was doing had nothing to do with my basic branch.*

"That briefly outlines a specific case of an officer being in the right spot, but who failed to be promoted because of a sudden change in policy.

"I have discussed the promotion situation with many officers in the past few years, and it is amazing to me how many of them say that all I have to do is 'keep my nose clean.'

"I do not accept that as the healthiest way to keep the officers of the U.S. Army at their best. It is all too true that when incentive is taken away, ambition also disappears. I sincerely feel, and I know many officers will agree with me, that incentive is gone and ambition is withering away under present promotion policies.

"I hope I am wrong."

Priority of World War II Service

"I have served in a G1 capacity on high level staffs and so I am quite aware of the numerous problems connected with promotion policies. Certainly it is impossible to satisfy everyone and there are bound to be cases of inadvertent injustice to individual officers. I feel, however, that there is little or no reason to attempt to justify the present policy on the grounds that it is much better than it used to be.

"When I graduated from the Military Academy I was assigned to an outfit that went overseas before Pearl Harbor. There were few position vacancies in it and consequently few opportunities for promotion during the months when the Army was expanding and promotions were rapid in the ZI. Many of my classmates were promoted to major while in Replacement Training Centers while I was still a captain doing the work of a major in a regular outfit with no hope of promotion.

"Because of this initial block, I did not attain temporary lieutenant colonel in time to be in the zone of consideration for promotion to colonel in the recent selections.

"Judging by this record there is nothing which should qualify me above any of my contemporaries. My subsequent record, which should have some bearing, doesn't because promotion policies give high priority to date of temporary rank attained during World War II.

"I finished in the upper third of my class at Leavenworth but some of my classmates who finished below me are now colonels.

"I was ordered to the Far East and went into combat as a battalion commander in Korea. I served six months in Korea and was decorated with the Distinguished Service Cross, Silver Star, Bronze Star for valor, and Purple Heart. I received a letter from my division commander recommending me highly.

"I am confident that if my Korean service had occurred in World War II, I would now be included among the list of officers selected for promotion to colonel.

"My question is: How much longer will dates of temporary rank as a result of World War II service receive high priority over subsequent service or over the service of those officers who through no fault of their own did not receive rapid promotions during the Second World War?"

One Bad ER

"I am a captain in the Regular Army. My date of temporary rank is 16 November 1944. My date of permanent rank is 2 January 1949. I am drawing longevity pay for over 14 years' service. The officer just beneath me on the promotion list was promoted to the temporary grade of major on 16 November 1950. I do not appear on the eligible list for promotion as published this year.

"Briefly, here is my story. I was integrated into the Regular Army as a first lieutenant in 1946, presumably because I had some of the qualifications considered necessary for a Regular Army officer. I was rated in the Excellent-Superior bracket for the next few years and subsequently promoted to the permanent grade of captain, presumably because I had the qualifications considered necessary for promotion to that grade. I was requested, by name, for a special assignment in a foreign country where I served for several months with a rating of Excellent. Then "Casey lowered the boom!" I don't think that it is necessary to go into the gory details except to say that the commanding officer and I had a "falling out." For the sake of the story let's assume that he was 100 per cent right and that he gave me an accurate, unbiased, fair efficiency report of Unsatisfactory. (Actually it was slightly better than Unsatisfactory and I do not concur that it was an accurate, unbiased, fair efficiency report.)

"After returning to the U.S. I was assigned to the service school of my branch for the advanced course. In accordance with the regulations, an Academic Report is rendered on officers while attending a service school and no Efficiency Report is rendered for that period. Therefore, when the Board met to select officers for the big promotion program, my latest efficiency score, the one on the top of the pile, was little better than Unsatisfactory. Ergo . . . no promotion.

"Since that time, however, my efficiency reports have indicated that my performance of duty is again superior.

"Can I be promoted?

" 'No, sorry old boy, but you are not on the eligible list.'

"When will a new selection board meet?

" 'Oh!, we can't tell you that, even if we knew we couldn't tell you that.'

"What is the answer? It amounts to this . . . my future in my chosen profession is split wide open by the opinion of one man. No one has bothered to consider that possibly that man was wrong. Incidentally, an evaluation proven wrong by subsequent efficiency reports. If I could be promoted today (which is impossible until a new selection board meets) there is no provision for restoring my lost seniority, not to mention the lost pay.

"So you see, it is another case of 'Giving the guilty so-and-so a fair trial and then hanging him.' One difference though . . . I didn't get a chance to present my side of the story (which is a good one if I do say so myself)."

Reserve Officer

"My military career began in 1915. I served as an officer in combat in the First World War and I now have more than 35 years of continuous service in the National Guard and Officers Reserve Corps. In about a year and a half I shall reach the compulsory retirement age of 60 and yet I am still a lieutenant colonel.

"I was a major in 1941 when ordered to active duty. As you know, there were practically no promotions of reserve officers in those days, particularly in the field grades, and I was still a major in June 1942 when I went overseas—at the invitation of a famous soldier who then commanded one of the best divisions in the Army.

"I served in the division in responsible staff jobs during its first campaign and was ordered back to the U.S. as an instructor in April 1943. When I returned there were no position vacancies in the U.S. because of the wholesale promotions in the U.S. during the months I had been overseas. Consequently I was denied the promotion customarily awarded an officer returning from combat. I was assigned to the school of my arm of the service. I was there a year and then was ordered to troops as an Executive Officer of a unit in training. Three times during the year I was at the school I was recommended for promotion—in June 1943, December 1943, and February 1944—and each time I was turned down because of lack of position vacancies. I was finally promoted to lieutenant colonel in June 1944 through the efforts of a major general who became interested in my case. During these months many youngsters who were lieutenants in 1942 and babies when I was fighting at Chateau-Thierry in 1918 had become lieutenant colonels without ever having been outside of the U.S.!

"I went overseas again in October 1944 and served through the Rhineland and Central Europe campaigns as an Executive Officer of a combat unit and part of the time its commander. I remained in Europe until November 1945.

"In January 1946 a very serious illness in my business connections made it necessary for me to return to civilian life—and at a time when three more months of service would have given me a separation promotion to colonel.

"Since the reorganization of the ORC in 1946-47 I have been active in it as a commander and higher staff officer and have qualified four times under four separate sets of regulations for promotion to colonel but each time I have been turned down because of some hairsplitting technicality . . . designed, it seems to me, solely for the purpose of keeping reserve officers from becoming colonels.

"Why it is, may I ask, that an officer with 35 years of continuous voluntary, enthusiastic service, with voluntary combat duty in both world wars—four times qualified and four times recommended for promotion—is penalized and denied promotion? And in effect, because he sought and accepted a combat assignment in 1942.

"And why is it that in the 'temporary' TDs—which are never made permanent—that qualified reserve officers may be promoted to any rank except that of colonel? The TD under which I am now serving has vacancies for colonels but I can't be promoted solely because of this restriction!

"For nearly 40 years I've always believed that a good job well done would eventually earn a square deal from the United States Army—*but lately I've begun to wonder.*"

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Talking Tactics

If you plan and execute a speech just like you do an attack, you'll wow your audience and convince 'em, too



Find 'em & Fix 'em



Fight 'em

Captain Clay Schoenfeld

ILLUSTRATED BY GEORGE WARFEL

THE phone rings on what had started out to be a pleasant morning at Camp Longstreet. It's the Old Man calling.

"Major Doakes," he says, "I have an interesting detail for you. The Cold Creek Kiwanis Club wants somebody to give them an eyewitness account of NATO developments. You're just back from EUCOM, so I've told them you'll be there next Wednesday noon."

"Yes, sir," says Major Doakes, "but Colonel, I've never done much public speaking, sir."

"Nothing to it, Doakes. And while you're at it, put your thoughts down in a form that would make a good article for one of the service journals. About time this command was breaking into print again."

"All right, sir. I'll do the best I can." The Old Man's receiver clicks down ominously.

If you haven't yet been in Major Doakes' shoes, it's only a question of time before you will be. More and more of us are being asked to hit the knife-and-fork circuit and tell our experiences and opinions in magazine articles.

There is no real mystery about how to draft an effective speech or write an entertaining and informative article. The principles—the tactics—are exactly the same as those of small-unit combat.

When you lead an infantry unit in the attack, the first thing you have to do is *find* the enemy. Then you *fix* him so he's pinned down and can't maneuver. Next you *fight* the enemy by enveloping his flanks or, if he's widely extended, by penetrating his center. Finally you *finish* the job with a shock-action assault.

Now these tested principles are exactly the same ones you use to engage, hold and win an audience. First, you *find* your target by determining the best appeals to use and then by using them to arouse interest. Next you *fix* your audience in its seats, so it doesn't squirm around and so that it gets exactly what you're trying to put across—which you do by stating the theme of your message clearly and concisely. Then, you *fight* to develop your topic, shooting facts, statistics, anecdotes, and examples, at them. Finally you *finish* the job by restating your case with a bang.

Of course we're assuming that before you tackle your job, you've collected, collated, and evaluated your material. In short, we're assuming you have something to say.

Then just as the principles of combat dictate that every combat team, regardless of size, is made up of a holding force, a maneuvering element and a reserve, so the principles of composition dictate that your piece has an introduction, a main body, and a conclusion.



Finish 'em

CAPTAIN CLAY SCHOENFELD, Infantry, is on duty in the Information Section, Office, Chief of Army Field Forces. He entered the Army in 1941 and was commissioned in 1942. In civilian life he is professor of journalism at the University of Wisconsin.

Let's consider now the techniques and the "weapons" we can use to gain ground, to punch our ideas over.

Your beginning—your *finding* and *fixing* force, has four purposes: to catch the reader's eye or the listener's ear; to arouse his interest; to supply him with a theme; and to entice him to read further or listen attentively.

So your beginning should be simple, short, appealing, and aimed at the target; and it should be a vital part of the whole thing.

Your beginning usually falls into two parts. One is the forceful statement of the idea of your story or speech, given in terms that will immediately let the reader or listener see the relation between your words and himself. The other is an elaboration of the idea in a way that will hold his interest and carry him on into the body of the story. This may be a dramatization in the form of an incident or anecdote, or a string of revealing facts that hammer the subject home. Sometimes the forceful statement of your central idea will come first. Sometimes the beginning will start with the "come-on"—the collection of interesting facts or the anecdote—and follow with a clear statement of the theme.

For example, in this article I opened up with what is essentially the script of a little play, posing a familiar problem in such a setting that my military readers could put themselves (I hope) right into the situation. This was my "come-on," designed to arouse interest. Then I came through quickly with what is intended to be a clear, concise statement of the gist of my piece—that the principles of composition are just the same as the principles of combat.

To *find* your target, your beginning must be slanted to the audience. This article is slanted at a military audience. But when Major Doakes begins to draft his Kiwanis Club speech he must slant it at an audience of businessmen.

To *fix* your target, you must get to the point quickly, then lead your audience directly into the composition. To keep them up in the air indefinitely as to what you are talking about is as bad as to commit your maneuvering platoon before you have built up a base of fire. And to use a rambling series of "funny stories" that have no particular bearing on your theme is as bad as to order a tactical maneuver that doesn't converge on the objective.

NOW that you have *found* and *fixed* the target, how do you *fight?* With your old friends, *fire* and *movement!* You present your arguments by alternating between the fire of direct declarative statements and the movement of descriptive paragraphs.

The thing to do in the main body of your talk or article is to figure what your people know and what they don't know, then write or speak accordingly, relating new, unfamiliar facts to old, familiar experiences. Link your factual statements with the probable experiences of your audience, on their level of understanding. Whenever you present a general principle, show its application in a specific case, and quote the way somebody else has stated it or tell a pointed story. No matter how complete your facts, your audience won't remember them for ten minutes unless you take the trouble to find specific illustrations for each statement you make.

In Major Norman Locksley's article, "Alert Units," in the COMBAT FORCES JOURNAL of January, 1952, there was a good example of what I mean. At one place he made this declarative statement:

"If the Korean war simmers down, and if a Grade A, certified redhot and uneasy, chip-on-the-shoulder kind of peace lasts for many years, we will have to keep at a high pitch, trained, ready for anything."

Then he asks the reader a direct question:

"How can combat effectiveness be created and maintained before the fighting starts?"

He supplies a reply:

"Partial readiness is not the answer. Unless we have some outfits ready to go when the whistle blows we would pay a high penalty as we have in the past."

To support his statement he pulls out a quote:



"As General Marshall put it (19 February 1951): 'If we had immediately available a trained reserve that could have been quickly brought into action, that Korean attack would never have been made. But if made, it would have been suppressed, I think, long before this.' "

Not content with this, Major Locksley clinches his argument by painting a picture for his readers in everyday colorful terms:

"Company L of the Umpteenth should be as ready as the West Miasma Volunteer Hose Company to slide down the

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pole and roar off to the scene of action."

He then goes on to his next declarative sentence, which he elaborates on by giving another series of incidents and anecdotes, examples, statistics, descriptions, dialogue, direct quotes, and figures of speech.

An article or speech without the *fire* of sharp declarative statements is as weak as a squad attack unsupported by a BAR. An article or speech barren of the *movement* of documentary paragraphs is as suicidal as a frontal assault. It's the combination, the swift change of pace, of *fire* and *movement* that does the trick on the manuscript page as it does on the battlefield.

Use this fire-and-movement technique and you're a cinch to bracket your target. In short, you can best entertain and inform your listener/reader by guiding his interpretation of abstract words and phrases through the use of concrete cases, colorful illustrations, and lively examples.

There isn't anything new about this, of course. It's probably as old as writing. In the form of parables, it has helped make the New Testament live for each new generation.

As you move from one fire-and-movement "patrol" to another, be sure to lead the reader by the hand, so to speak, by using plenty of simple connectives and by making the "skeleton" of your article crystal-clear. Give your listener a terrain map and a compass, in other words, so he never gets lost as you move him from point to point, from introduction to conclusion.

The conclusion itself ought to be short and forceful. Its job is to *finish* your target off with a clincher—a telling argument, phrase or story, and a recap of your main points that will let your reader/listener know he's been hit hard with an important idea, an idea worth remembering. Don't just let yourself run down like a worn-out jeep.

NOW for a few words on the employment of weapons. In drafting a piece or a talk, there's no substitute for the steady, machine-gun fire of plain talk.

There's no place in writing or speaking for public consumption for the stilted, tail-backwards, alphabet-soup-and-fifty-cent-word-loaded staff-paper style. The gobbledygook of the military is as bad as that of the lawyer, the doctor, the economist or the educator.

When you come to address the public, toss overboard the passive verbs, the complicated structures, and the technical lingo that load down most GI documents. Write just like you talk—in plain, everyday, unvarnished language. Use contractions, repetition, sentence fragments. Define your technical terms in plain words whenever you have to use them. Use comparisons with everyday things and routine experiences.

There's no such thing as good English in the abstract. The prime requirement of good writing and speaking is not just to follow the rules in a book. The big test is making yourself understood. The one question you ask of every word or phrase in an article is simply this: "Does it get my idea across to my audience?"

A Veterans' Administration "expert" recently wrote in a letter to an ex-GI: "The non-compensable evaluation heretofore assigned you for your service-connected disability is confirmed and continued."

Now this may be exact A-plus textbook prose. But that doesn't make it good English when you consider its mission. It failed completely to reach the objective. The former soldier wrote back, "What the hell do you mean?"

So another VA official, with a sharper sense of *good* English, replied: "What we mean is, there hasn't been any change in your physical condition so you still won't draw a pension."

The other day I asked a colonel, who appears frequently in the public prints, this question: "Jim, how do you throw off your professional mantle and write so clearly?"

"Well," he said, "I use a very simple field expedient. I just ask myself how I would explain each of my points to a barracksful of recruits, and then I write that way."

Suppose you wanted to tell a civilian audience how important it is in combat to seize and hold high ground. Would you talk like this official directive?

"A fundamental that must be emphasized at every opportunity throughout all tactical training is the careful analysis and use of terrain. This should include the determination of key features or localities, especially any dominating ground."

Or would you talk like this?

"Always go after the high ground. I don't care where the enemy is, if he hasn't had sense enough to get on the dominant terrain, you've got him licked. Let me give you an example of that from my personal experience on Guadalcanal. There was one dominant hill. When we got that hill, there was just nothing left to it thereafter. With the dominant terrain in our hands, there wasn't anything that the Japs could possibly do to stop us."

Beneath your professional dignity to write or talk like that? Nonsense. Those last are the words of General J. Lawton Collins.

The writers of official manuals and directives might well use the language of the Chief of Staff as a model.

And be sure you bring the big picture down to life size, and give your audience a package small enough to grasp and digest.

Whenever you are writing or talking about a division or a regiment, focus from time to time on a particular or typical small unit action, or even on a particular soldier. Whenever you are describing, say, the functions of an RTC—focus on the course of one typical selectee through the camp. Whenever you are describing a series of events—say, in the life of a general, focus on one point that is so significant that you can hang much of your story on it.

The focus technique was at the heart of Ernie Pyle's success as a war correspondent. Ernie never wrote about the big units. He always wrote about Cpl. Jack Jones of Co. B. That is why the Fifth Army's days and nights of travail in Italy are indelibly imprinted in the memories of thousands of Americans in terms of the dead body of Captain Waskow coming down a moonlit Liri Valley trail on the back of a mule.

JUST as the individual soldier is the most essential infantry "weapon," so *human-interest* manpower is vital to lively composition. Packs, vehicles, and troop units, and most of the other gear of war are inanimate and essentially dull. But soldiers are interesting. The use of names, if you don't overdo it, will personalize your article/speech and will also lend authority to it. Write or talk about people—doing things—that are unusual—and/or important, rather than about campaigns, strategy, howitzers, and bivouacs as such.

One honest-to-john, breathing, swearing, eating, shooting man on the firing line of your composition is worth more than an impersonal regiment.

Well, that's my own attack.

Reams of copy have been written on the art of writing/speaking, but it boils down to this: *find 'em* with sound reconnaisance, *fix 'em* with a base of hard facts, *fight 'em* by fire and movement, *finish 'em* with a shock-action clincher, guarding all the while with machine-gun plain talk, rifle-fire accuracy, pinpoint focus, and human-interest manpower.

O.K., Major Doakes, you take it from here.

What's Wrong With the Infantry?

A plain-spoken sergeant says the trouble with the Infantry could be fixed quickly if we had real noncoms with real authority

SFC Armored Infantryman

I WOULD like to sound off a little on the current question, "What's Wrong With the Army?" except that I would like to substitute the word infantry for Army.

Everybody says the NCOs aren't doing their job. Okay, why aren't they doing their job? There are several reasons, from my viewpoint. I have had about ten years' experience with the infantry both in the Army and the Marine Corps and in that ten years I have watched the infantry and to my mind it's not what it used to be.

Point No. 1 is pride. Without pride an infantry outfit *can't* be any good because that's all you get out of being in the infantry, an inner pride, because you know that you've served in the outfit that does the *real* fighting and you don't have to look up to anyone. When a noninfantryman can get combat pay the same as an infantryman the doughboy has to have something that will make up for the unfairness of it and that something is *pride*. All he can do is look down his nose at the artilleryman or engineer and say, "Okay, you SOB, you're getting as much money as I am but I worked ten times as hard for mine as you did." But if he just feels sorry for himself when he says it and doesn't really feel superior, he doesn't have pride.

As the old saying goes, the NCOs are the backbone of the Army and that's right. An outfit can have lousy officers but good NCOs can always bring it through and good NCOs are mighty scarce nowadays. Plenty of the present-day NCOs were good ones at one time but now they just don't have it. What is it that they don't have? That's right, pride again. Why not? Reason number one. Too many chiefs. There are too many NCOs nowadays. The Air Force has changed their ratings so that the only NCOs (if you want to call them NCOs) are first-three-graders. The Army used to have specialist's ratings. Why don't we get them back? Or better yet, why doesn't the infantry distinguish between rates? I'm a 1745 myself but the mess sergeant (pardon me, mess steward) wears the same chevrons that I do. So do the supply sergeant and the motor sergeant.

Army Field Forces says the infantry needs distinctive devices on the uniform. I agree. I think the infantry needs an entirely different uniform, one that would stand out and identify the soldier as an infantryman, the elite of the Army. Nowadays anybody can be a noncom in an infantry rifle company. Wear the stripes, I mean. But can anybody *be* an NCO? Hell! no, it's common knowledge that only a small percentage of American men possess the necessary qualities of leadership. So how can we expect a BAR man or a mortar gunner or jeep driver or company clerk or supply clerk or mess cook or just any joe in a squad to be a real NCO? He may be a good soldier and know his job but there's a lot of difference between being a rifleman and being a squad leader. We need a strong distinction between line NCOs (1745s and 1812s) and support NCOs.

Point No. 2 is too little confidence in NCOs. Officers seem to be afraid to trust anybody below a SFC nowadays to do little things, such as sergeant of the guard, or coaching on firing line. If a man is treated as an inefficient slob, he'll act like one. Here at my post the sergeant of the post guard has to be a master sergeant and the corporals of the guard have to be sergeants first class. It's silly as hell to call a sergeant the corporal of the guard. It's little things like that that make a NCO feel like a stooge. Noncoms should be handed their responsibility and then if they don't do their job they should be reduced. But nobody likes some little beardless second lieutenant breathing down his neck especially if the lieutenant doesn't know half as much as the NCO himself.

Point No. 3 is poor officers. There was a time when a sloppy infantry officer couldn't be found and the officers were more or less duty bound but nowadays some of them look sloppier and dope off more than the NCOs could do in a whole hitch. Nobody can give me an excuse. There isn't any. How the hell can we have a good infantry if so many officers are adjutants at heart? Get on the officers and let them get on the NCOs and the ball will start rolling. But until *all* the officers start trying to set an example, the infantry will continue in the same rut.

Point No. 4 is training is too easy. If a man runs his butt off every day and has to work harder than anybody else he'll feel prouder. Instead of sitting in some classroom all day trying to stay awake, let's spend about twenty per cent in the classroom and the rest in the training area getting a physical workout instead of trying to devise a way of staying awake.

Point No. 5 is no freedom while on liberty. At this post we can't go to town and drink in peace. A man who has put in a week of good hard training has to go out and blow off a little steam on the week end but here you get a DR for even sleeping on the bus back to camp. I don't mean that a soldier should be free to tear up the town and get away with it but a fight among soldiers shows that somebody has a little pride in his outfit. There was a time when no SOB talked about another man's outfit without getting a chance to back up what he said. But here the civilian police arrest you and lock you up and after you get through paying their wages you come back to camp and get punished again by being reduced if you're an NCO or court-martialed if you don't have anything to lose. It isn't right and never will be.

I think these five things are the main things wrong with the infantry today and if they were straightened out the little things would take care of themselves.

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Let the soldier march with good grace, holding his head gallantly, his face full of gravity and state; for he is not as other men . . .

WHAT'S IN A NAME?

Major Reginald Hargreaves

ILLUSTRATED BY THE AUTHOR

IN the *London Daily Telegraph* for 29 June 1951 appeared the following news item:

> New York
>
> United States Public Relations officers have been notified they are not in future to refer to the American soldier as a G. I. They are to call him a soldier. In ordering this in an official bulletin, the authorities said, "The term soldier is ancient and honourable."

To at least one reader of this paragraph, whose contacts with "GI Joe" and his officer in two World Wars have left him with the warmest esteem and regard for a remarkably sound type, this intelligence could only be a source of unqualified satisfaction. An honorable calling rates an honorable appellation; and there is no term too dignified for the man who stands as a barrier between the democratic way of life and the barbarism that seeks to overwhelm it. That is a position of trust whose tremendous responsibilty confers a potent and very special quality on any man who upholds even the smallest part of it: his just claim on public respect and gratitude should be reflected in the name by which he is known.

← *". . . Men who fought for money"*

There can be no reasonable objection, of course, to a friendly nickname, a *nomme d'usage,* for the soldier in his more unbending moments, so long as it is strictly confined within its own particular terms of reference. To deny the fighting man that human touch would be to relegate him to the category of an inhuman robot. "GI Joe" himself responded cheerfully to the name of "Doughboy" not so many years ago. The British soldier has been known in turn as "varlet," "Old Cruse,"[1] "lobster,"[2] "bloody-back," "swaddy" and "Tommy Atkins"; the French linesman as *"sans culotte," "vieux grognard," "vieux moustache," "piou-piou"* and *"poilu";* the humourless Russian as "Ivan"; the dour German as *"feldgrau"* and "Fritz."

But there is something firm and solid about "soldier" which seems to suggest a man who confronts the world foursquare; a master-craftsman, steady, unimpassioned, upright and unblenching; with an integrity as impervious to injury as his unassuming self-respect.

Moreover, "soldier" *is* an ancient name, and one the years have brought a full meed of honor. Time was, however, when it stood for something very different from the enheartening image it conjures up in the mind today.

THE armies of olden times were recruited under a feudal system of land tenure which called into the field a body of men who fought to preserve the personal stake they held in the land of their birth. In effect, a man took up arms to defend the way of life he preferred above all others.

The principle of *scutage* (shield money), however, permitted the individual, in some circumstances, to commute his obligation "to attend the King in war" into a money payment. With the funds thus accumulated, the practice arose for the Sovereign to hire mercenaries to supplement his ordinary feudal levies. It was to these purely professional warriors that the name soldier was first applied.

For such men fought, not for a stake in the country of their birth, not for a way of life that above all else was dear to them, but for money. That was what they were after—good hard cash; of which, as often as not, a heavy pre-payment had to be handed over before they would consent to take the field at all.[3]

To such contract-warriors, very naturally, was given the name which derived from the *solidarri.* They were men who quite frankly fought for *soldi,* or money. For patriotism, the defense of an ideal, played no part in inspiring a mercenary to take up arms; and thus the name of soldier lacked the dignity and human worth which hallows a fighting man who responds to his country's summons without any sordid preoccupation with regard to personal gain.

By mid-sixteenth century, with the first appearance of standing armies—inaugurated by Charles VII of France—the need for hired mercenaries steadily diminished. Gradually they passed away, leaving behind them only the memory of their prowess, and the name of "soldier" for the man who had made a trade of war.

BUT the original implication—that the soldier fought for what he could get out of it—most certainly failed to apply to the man who drew the beggarly wage of a member of the regular fighting forces. As the scarlet roll of war un-

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[1]The name given to the veterans of the Crusades, as the soldier of the British 1914 Expeditionary Force is referred to as an "Old Contemptible."

[2]From the steel-clad men of Hesselrig's Troop in Cromwell's Parliamentary Army. The name was also given to the "Red" Marines, or Royal Marine Light Infantry, and during the 18th century to all red-coated Infantry of the Line.

[3]An anticipation of the system of giving bounties on enlistment, which was such a feature of 18th century armies, and which so strongly characterized the Continental Army and the Militia of the War of Independence.

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"A uniform coat and a cockade are sufficient reasons . . . not to assist the soldier."

folded, the old meaning of the word soldier was forgotten. Yet many a long year was to pass before it attained the honorable connotation which is its pride today.

Recruited to a regrettable degree from the misfits and outcasts of society, and dreaded for generation after generation as a potential instrument of tyranny, for century upon century the soldiery's claim on popular esteem was negligible—save, of course, when a war-stricken country was frightened into a sudden recognition of their usefulness as a sword and buckler between the cringing bodies of the citizens and the aggression which threatened them.

Truth to tell, enlistment on an indefinite term—which really meant for life, or until too disabled for further service—at a pittance which entirely failed to keep pace with the depreciation in the value of money and the rising cost of living, held out insufficient attraction to bring the right sort of recruit into the ranks. The indifferent quality of the human material with which the few worthwhile volunteers were supplemented, from the sociological as well as the military point of view left nearly everything to be desired.

In England, the whole situation was aggravated by the evil repute earned for the man in the red coat by the soldiers of Cromwell's army throughout the whole sour period of the Puritan Protectorate. Employed as *agents provocateurs* and as a sort of contemporary Gestapo, to enforce the rigors of a furiously repressive puritanical law—a posse of soldiers, amongst other things, could even force their way into a man's house on the Sabbath, to ensure that he was not indulging in the carnal sin of cooking himself a Sunday dinner, or even so much as peeling a potato—it is small wonder that the civilian population came to regard any man in a military uniform with dread and loathing. And the tradition of detestation not only persisted obstinately in England, but crossed the seas with the *Mayflower* to take solid root in what was to become the United States.

FOR in due course, even the men under Washington, in arms in defense of American liberty, found themselves the recipients of scant sympathy from those of their fellow countrymen who had managed to evade the hazards and privations of service in the field.

"A uniform coat and a cockade are sufficient reasons for the inhabitants why they will not assist or relieve the soldier's distresses," reported the indignant Colonel Michael Jackson to General Knox. Colonel Ebenezer Huntington, writing to his brother, even went so far as to affirm, "I despise my countrymen, and I could wish I could say I was not born in America. I once gloried in it, but am now ashamed of it. The rascally stupidity which prevails, the insults and neglects which the Army have met with, beggars all description."

Napoleon's meteoric rise as the military ogre of Europe obviously threatened England with submergence under the ever-expanding flood tide of Gallic victory. But even so, the esteem in which the redcoat was temporarily held was little more than gratitude based on a lively anticipation of favors still to come. It was an unedifying sentiment, which had been pithily anatomised, so early as 1620, in the searching lines of Francis Quarles; who wrote out of the depth of his own bitter experience in arms:

God and the soldier we alike adore
When on the brink of ruin, not before:
After deliverance, both are alike requited:
God is forgotten, and the soldier slighted.

At the end of the twenty-year struggle, the men with the muskets were still regarded, as their Commander did not hesitate to affirm, as "the scum of the earth"; although my lord Wellington did have the grace to add, "It is only wonderful that we should be able to make such fine fellows out of them."

William Napier, the historian of the Pensinsular War, with his infinitely greater humanity, could find it in himself to pay a far more generous tribute to "the patient, hard-working, brave but obscure soldier, without whom, and his rough virtues, one would vainly hope for glory, or the country's safety." At least in the eyes of the discerning, the soldier had so striven in his country's cause as not to be entirely without worth and honor.

But the more general attitude of contumely and distrust had scarcely abated even by the turn of the 19th century. For an article by a serving noncom-

missioned officer, which appeared in an issue of *The Naval and Military Gazette* during 1845, roundly averred that, "The soldier is condemned and despised by the associates whose society he has been accustomed to from earliest intimacy. He is shunned by his relatives; and the fond and doting mother, the kind, affectionate sister, look upon him in much the same light as it has been my unhappy lot to witness in a mother and sister parting from an embarking convict." There were as yet few to recall the charge of the dying Emperor Severus to his sons, "Cherish the soldier."

It was, perhaps, the inescapable "professionalism" of his calling, the isolation from the rest of the community which his vocation entails, that did as much as anything to perpetuate the odium in which the soldier continued to be held. It is all too easy to dislike a person you do not really know; to feel kindly towards another human being is always difficult without a certain degree of intimacy. The man in the uniform jacket was too remote to escape the defensive mistrustfulness which characterises the majority of folk in the presence of something they do not fully understand. We are instinctively *en garde* against the unknown.

It was different, of course, with a bellicose Germany, where the soldier was held in rather naïve adulation; while France belauded an army it hoped would never be called upon to prove its quality in anything more serious than punitive colonial police-work. But in the United States, a Republic wherein the dollar is the uncrowned king, a man had to have the root of the matter in him to a very pronounced degree before he courted the commiseration of compatriots to whom the adoption of so (literally) unprofitable a way of life as soldiering almost amounted, in the eyes of the up-and-coming, to a confession of failure. In England, the man in the King's jacket was an embarrassment to his relatives, and such a cause of offense to the general public as to be barred the best seats in the theatre and the more exclusive bar (saloon) in a tavern; while for his officer to have appeared in uniform at any social function which brought him into contact with his ordinary civilian fellows, would have been regarded as so outrageous a solecism as to call for prompt and withering rebuke.[4] Purely Service clubs were looked upon with dark suspicion as the probable centre of conspiracy against "the liberty of the people"; and Rudyard Kipling could write, without arousing his fellow-countrymen to the slightest sense of shame:

O it's Tommy this and Tommy that, an' "Chuck him out, the brute!"
But it's "Saviour of 'is country" when the guns begin to shoot.

It was the two great campaigns of 1914-18 and 1939-45 which established the soldier in the high esteem he now enjoys in the eyes of all who have had the common sense, and common decency, to assess him at his intrinsic value. It was so obvious that he was the champion who took and gave the blows in those stupendous struggles for the freedom of the individual to which all opponents of totalitarianism were so resolutely pledged. It is equally plain, in this present hour of danger, that his onerous task must be taken up anew in the face of an even darker threat to liberty.

The men who fought against the hosts of Germany and the swarming legions of Japan, as the men who now face the hordes of Communist imperialism, can never be rated as mere mercenaries or jetsam from "the common sewer of unemployed labor." For, like Cromwell's "Ironsides," "they make some conscience of what they do"; they "know what they fight for, and love what they know."

SOLDIERING is not a trade any more than it is a profession. It is something infinitely more lofty and exalted —a calling, a vocation. It is to that high plane in the scale of human values, once held by the self-dedicated Crusader, that the soldier, at long last, has been restored. For in these precarious days the world has been forced to recognize the grim validity of Francis Bacon's penetrating dictum, that "The principal point or greatness in any State is to have a race of military men." It follows that a man privileged to enter one of the armed services has every right to regard himself as something superior to the ordinary ruck of his fellow creatures; for he is consecrated to the most exacting and self-testing, but at the same time the most elevated, role a servant of the state can be called upon to play. Uplifted by this selfless spirit of dedication and dignified



". . . the carnal sin of cooking a Sunday dinner."

[4]Other than a Hunt Ball, oddly enough.

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by the sense of responsibility and quiet pride that accompanies it, his prestige is, rightly, the envy of that many who have failed to qualify for the choice company of the elect. In all sobriety, to affirm that is in no way to pitch the tone too high. For it is not the language of exaggeration which insists that the man who, with good heart and high courage, hazards all the perils and privations of service in his country's cause—even to the point of life-sacrifice itself—is "not in the roll of common men," but is of those of whom it may be said, in all reverence and sincerity, that they "are set apart and made peculiar to God."

It is the soldier's destiny continually to prepare himself for a tragic enormity which he hopes will never occur, perpetually to gird himself for a disaster he is as unwilling to provoke as he is helpless to avert. For as the late Field Marshal Lord Allenby so bluntly pointed out, "Soldiers don't start wars; politicians start wars; soldiers end them." The ones to watch are the sabre-rattlers in frock coats; for "as history has repeatedly proved, it is not with the brass-hats but with the brass heads that the danger to a country lies[5]." But even when policy is best-intentioned, it may fail in its objective; for good will in one Government is helpless against ill will in another. Then the case is such as Talleyrand, the politician, put to Ney, the soldier: "When my work fails, then yours begins."

THE prime object of all wars is to bring about a better and more stable condition of peace; a consideration which is as sharply in the mind of the soldier as in that of any man. For let it never be forgotten that the soldier of the freedom-loving peoples is not the enemy of peace, but its guardian; not the violator of liberty, but its champion.

It is that honorable status which has given a new, a deeper and more to be venerated meaning to the name by which the fighting man is known.

So, as stout old William Garrard recommended, so long ago as 1591:

"Let the soldier march with good grace, holding his head gallantly, his face full of gravity and state; for he is not as other men. So shall he go, and he shall be esteemed and honored and commended by all the lookers-on, who shall take wonderful delight to behold him."

"What's in a name?" demanded the lovelorn, inexperienced daughter of the Capulets. A very great deal—if the name be "Soldier."

[5]General George C. Marshall.

DOES WAR WORRY YOU?

(Continued from page 17)

bers resisted grimly. There is no typical Soviet soldier.

Man for man the German soldier outfought the Soviet soldier, and so did the Finnish. The Russian tommy gunner is as good as rubles can buy, but he is no superman. Much has been written about the wintertime endurance of the Russian. Does his body freeze at a lower temperature than human beings of other nationalities? If so, then there is something to be said for the Soviet Army's issuance of vodka. Actually the clothing inequalities between German and Soviet troops made for the real differences in winter. The American soldier is the best clothed and fed of any nationality, and should therefore have at least as great, if not greater stamina than his opponents.

No nationality has a monopoly on bravery or heroism, but the Communist soldier will advance to death with less hesitation than some other soldiers, for a bullet in the back awaits those who hesitate to carry out the "suicide orders" of Red officers. American soldiers should take satisfaction from the fact that their officers do not uselessly sacrifice them.

If fighting means dying the quickest, and in the largest numbers, then the soldier of Communism outranks all others in the world. But the American fights mighty hard to *survive and fight back,* which means that man for man he can be the best providing he is mentally strong enough not to let masses overworry him.

THERE is no high rejection rate of physical and mental misfits in the armies of China and the USSR. Military manpower in those countries is measured by the number of men who can walk on two feet and carry a weapon. Even though many of those uniformed bodies may be wracked with malnutrition and disease, ten pounds of rifle and fifty pounds of clothing and gear do not make these males maladjusted soldiers. The time may come when we shall have to lower some of our physical standards, at least for some of the less arduous military tasks. Our medicos have rejected husky football players and very often other men who wanted desperately to fight. There ought to be more realism about that.

There are some critics who recommend we lower our logistical standards to the level of Asiatic armies. Such trends toward Stone Age practices of "living off the land" will only slow up campaigns and increase our attrition. Our soldiers can do without Stateside luxuries so as to lessen the logistical burden, but it will take some serious orientation to get this point over and at the same time preserve morale. However, it can be done—and must because the real tonnages to be transported are in fuel and ammunition. The American soldier should take great hope and confidence from the fact that he is better supported than any other soldier. In logistical planning and execution we are years ahead of any of our opponents. Hungry men without ammunition are prone to surrender regardless of mental toughness. Let us not undermine our soldier confidence by surrendering to the theory of shoestring logistics.

HOW many of our guerrilla-harassed soldiers in Korea in 1950-51 knew of the "hopeless" campaign our soldiers had waged against brutal partisan actions in the Philippines at the turn of the century? If they had would they not have been greatly encouraged to outlast their ordeal? I think so.

The tradition of our Army has been badly neglected insofar as it is applied to our soldiers. We have failed to indoctrinate them sufficiently with our military history. Generations presently in arms should be told of generations past who bore arms and suffered. Ours is not the first generation to fight, but some would think so. Instead of bringing our new troops into the rich and colorful field of our military traditions we have put them in uniform only to permeate the camp atmosphere with all possible civilian influences and programs. Even the bands (and there are too few) play swing music to what some regard as the neglect of military music—which after all *is* military and makes one feel a part of the profession. Let's not apologize for the Army. Let's make our new soldiers like the service for what it is, not for how many juke boxes we can plant on the post. To do this means some of our training time must be devoted to our military history, to battles where small numbers won against large, to men who never gave up, and to facts about our enemies, actual and potential. The physically toughened body will only endure in combat as long as the mind is tough and determined. We must toughen both our minds and our bodies.

MOBILITY

AND THE FIRE DIRECTION CENTER



Lt. Col. John D. Byrne

Unified artillery fire direction for all heavy weapons not organic to the infantry battalion would give us better use of ammunition and fuel and increase our battlefield mobility

IT is suprising but true that in this age of speed the infantryman on foot is the fastest thing on the battlefield. Trucks, trains, ships, and aircraft cannot move ammunition and gasoline fast enough for the rifleman to take full advantage of his tactical opportunities. "We never had ammunition enough," wrote General Bradley in *A Soldier's Story,* "to shoot all we needed. . . . In Normandy, unloading . . . 35,000 tons a day, . . . there wasn't enough ammunition to go around and the beaches couldn't carry more.

"As we raced across France . . . the bottleneck shifted to transportation. Although by now there was plenty of ammunition piled up in the Normandy dumps, even the Red Ball Express could not carry enough of it to the front."

It may be impossible ever to catch up with the fleet-footed doughboy, but it should be possible to partially close the gap.

To do so, we must first concern ourselves with the mobility of the ammunition and transport required to dump heavy indirect fire—the modern tornado of shells, rockets, and

LIEUTENANT COLONEL JOHN D. BYRNE, Artillery, is a member of the English Department at the U. S. Military Academy. During the Second World War he commanded the 39th Field Artillery Battalion, 3d Infantry Division, in Africa, Sicily and Italy. The illustrations are by LIEUTENANT COLONEL E. W. JACUNSKI, Infantry, of the Department of Military Topography and Graphics, USMA.

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bombs—ahead of the infantry. Transport itself is a special problem, since the trucks, much of the railroad and aviation equipment, and the fuel for all of these, must move overseas in ships.

Obviously then, to increase battlefield mobility we must achieve economy of force from factory to foxhole. That is, we must get more fire power, more tactical advantage, out of each ton of ammunition.

For this very purpose, a system of fire support coordination centers exists to tie together all means of fire support: artillery, naval gunfire, and close air support—at all levels of command, from battalion to army group. But we have already noted that modern weapons can bankrupt any transport system. To seek the most economical use of the fire power at hand, therefore, we focus our discussion at the foxhole level: on the regimental combat team—infantry regiment and field artillery battalion. Specifically, we focus upon heavy indirect-fire weapons. We will not consider the 60mm or 81mm mortar, or any direct-fire weapons, such as tank guns, machine guns, or recoilless rifles.

With the wisdom of hindsight, we can say that the greatest area for improvement of the heavy indirect-fire support system is within the combat team itself. Recent experience has divided the mission of direct support, formerly the undivided role of the direct support artillery battalion, among a number of attached weapons units. Actually the division of mission was brought about for good and sufficient reasons: the terrific load imposed on our infantry regiments in World War II; the post-mobilization appearance of many new weapons; and the late-in-the-war diversion of air, antiair, and antitank forces to their secondary role of direct support. But it is now time to point out that permanent division of the direct support mission is harmful.

In my opinion, therefore, direct support should again be unified as the mission of the direct support artillery battalion.

For division of the primary function of direct support—combat intelligence—is dangerous, if not impossible. The direct support artillery battalion is, simply stated, a front-line federal bureau of investigation. This FBI maintains agents (liaison officers and forward observers) at infantry regimental, battalion, and company headquarters. It improves their operations by establishing additional observation posts and Army light aviation in the regimental sector. And it knits together the reports of all these agents with that fine survey instrument, the 105mm howitzer. That is, the howitzer locates any point which it has fired within ten yards or so. An artillery survey ties the gun data to map coordinates.

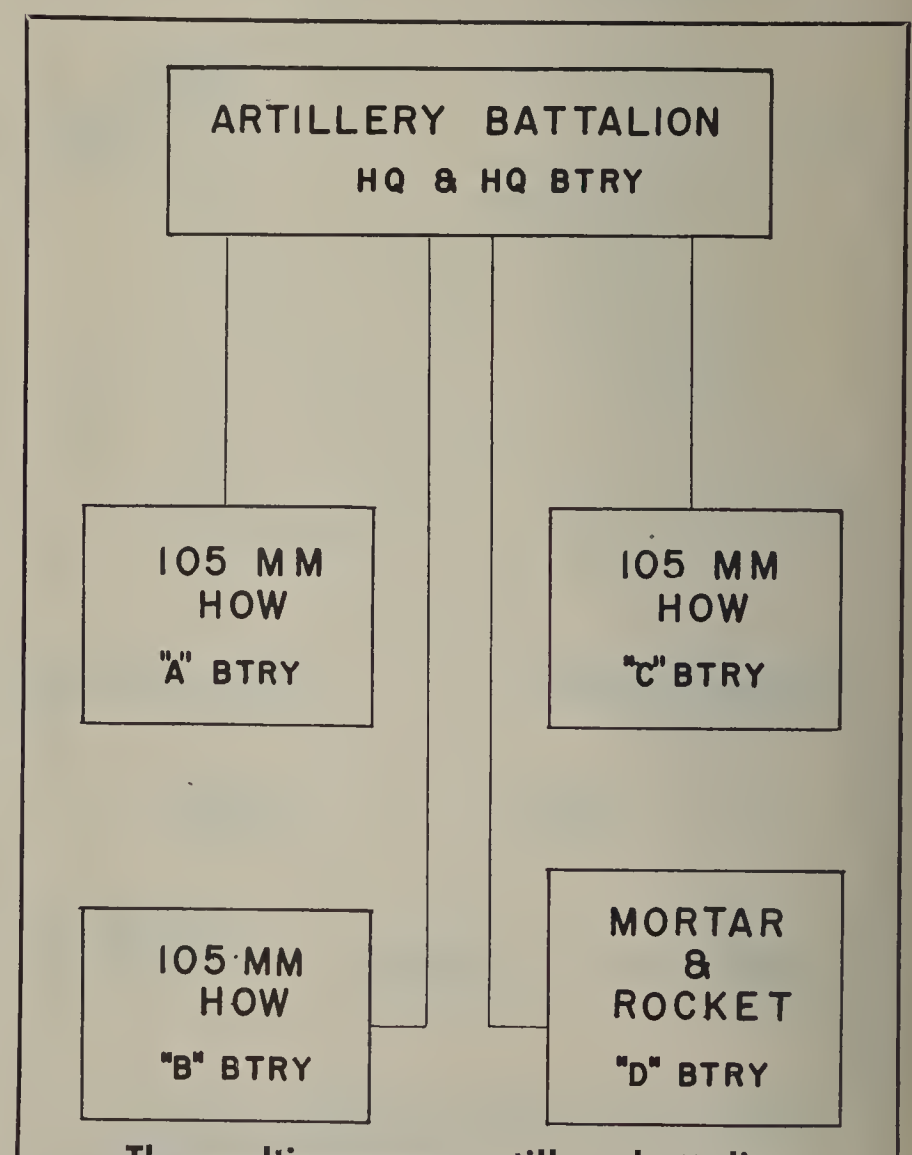
Thus does the artillery FBI assemble a picture of the latest enemy activity, coupled with the plans and locations of the supported infantry regiment. This latest news of friend and foe determines the safe-to-fire line. No indirect-fire unit can shoot efficiently in the regimental sector unless it leans heavily on the combat intelligence produced by the direct support artillery. Isn't there an old saw to the effect that most tactical troubles take place on the boundaries between friendly units?

Of course, combat intelligence cannot be directly divided. In practice, the attachment of assorted weapons units to the regiment divides the artillery S2 function by splitting communications resources, especially radio frequencies. And radio frequencies are the heart of direct support communciations because tactical emergencies usually coincide with poor or disrupted telephone systems.

EACH indirect-fire unit which would support a regiment requires a minimum of four radio channels—at least one for each supported infantry battalion sector, and one for interior fire control. But there is a serious probability that four radio channels per direct support artillery battalion cannot be provided in theaters employing large numbers of troop units. This scarcity of radio channels, therefore, is the most pressing reason again to unify the direct support mission under the artillery battalion of the regimental combat team.

A parallel division occurs in ammunition supply, the shock instrument of indirect fire. Under attachment, command control is supposed to go to the infantry commander because the attached units are directly under his thumb. But, in the case of heavy indirect fire weapons, attachment does not mean control; attachment means only the authority to expend the ammunition actually in the hands of the attached units.

For the minute the infantry commander—company, battalion, or regimental—starts to deal with a committee of liaison officers from attached weapons units, true control of heavy support fire passes to the offices of division, corps, and task force G4s. That is, the G4s, matching 24-hour-old expenditure reports with available ammunition and transport resources, are the only persons who can find out the sum of the blank checks filled in by the liaison officers during the previous day.



The multi-weapon artillery battalion



Thus we see that the system of "attachment" and "G4 control" produces an unhealthy condition in the command, staff, and communications of the regimental combat team. For, if there are several attached heavy indirect-fire units, the infantry staff and communications must take on more and more artillery work to coordinate them. At the same time, artillery resources do less and less. Furthermore, G4 control soon means rationing of artillery ammunition. Consequently, the artillery loses the "feel" of the heavy fire fight, and hence is unable to give the traditionally excellent artillery combat intelligence to the infantry commander.

Moreover, the trend to attach has gone to outright insertion in the infantry tables of organization. I refer, of course, to the 4.2-inch mortar company, which is nothing more than a regimental artillery battery. Of course it is not our purpose here especially to attack the use of the 4.2-inch mortar company. I simply show that it is a violation of the principle that the artillery should shoot all heavy indirect-fire weapons.

WITHIN the regimental combat team, the solution is to have the direct support artillery battalion fire all heavy indirect-fire weapons. Then the artillery battalion commander becomes, in fact, the combat team artillery officer. This solution takes the artillery load off the infantryman's back, and also gives the doughboy his only advisor for indirect-fire.

As soon as the regimental commander makes full use of his artillery officer he gains:

(1) A single agency to deal with fire power.

(2) Full use of the infantry staff and communications to control the rifle units.

(3) An integrated combat intelligence picture assembled by artillery observation and communications resources.

(4) The application of economy of force to ammunition, transport, and fuel.

A T/O change in the regimental combat team is necessary to get artillery interference out of the infantry staff and communications. The 4.2-inch mortar company should be transferred to the direct support artillery battalion as an organic unit.

The artillery battalion could make better use of the mortar company as an all-around weapons outfit. That is, the artillery battalion could train the 4.2-inch mortar company to fire a family of weapons, for example, 4.2-inch and 155mm mortars; 4.5-inch and 7.2-inch rockets. The weapons and ammunition could be drawn from corps depots as needed for the situation.

Artillery observation and liaison parties could adjust the fire of the mortar company; the two radio channels now given the mortar company would help the artillery to retain its ideal of four channels; the present problem of coordinating the 4.2-inch mortar company with the artillery battalion would disappear.

Stated in another way, the artillery battalion plus its special weapons battery would take over all jobs requiring the attachment of an indirect-fire-weapon company or part of a company to the infantry regiment.

Tactically, such a reinforced artillery battalion would reduce the clutter of stray vehicles, reconnaissance parties, and small CPs in the forward areas. In addition, a stronger direct support battalion would add to the combat team's shock power and depth. For, in the opening seesaw of a major war, the artillery may well have to engage in an occasional fire fight to execute its support mission.

CAN a light artillery battalion fire all heavy weapons in the regimental sector? As an observer of a few busy afternoons in a direct-support fire direction center, I can say that the present difficulty of the light artillery commander is responsibility without control. That is, "attached" weapons support shoots up the available ammunition, cuts into the number of radio channels available for artillery, and lacks the means collectively to plot all fire missions as a "safe-to-fire" line. My recommendation to use assorted weapons within one battalion will undoubtedly bring complexities of supply and training to the direct support artillery; but this broader mission will also bring a resultant simplicity to staff, communications, and command within the whole combat team.

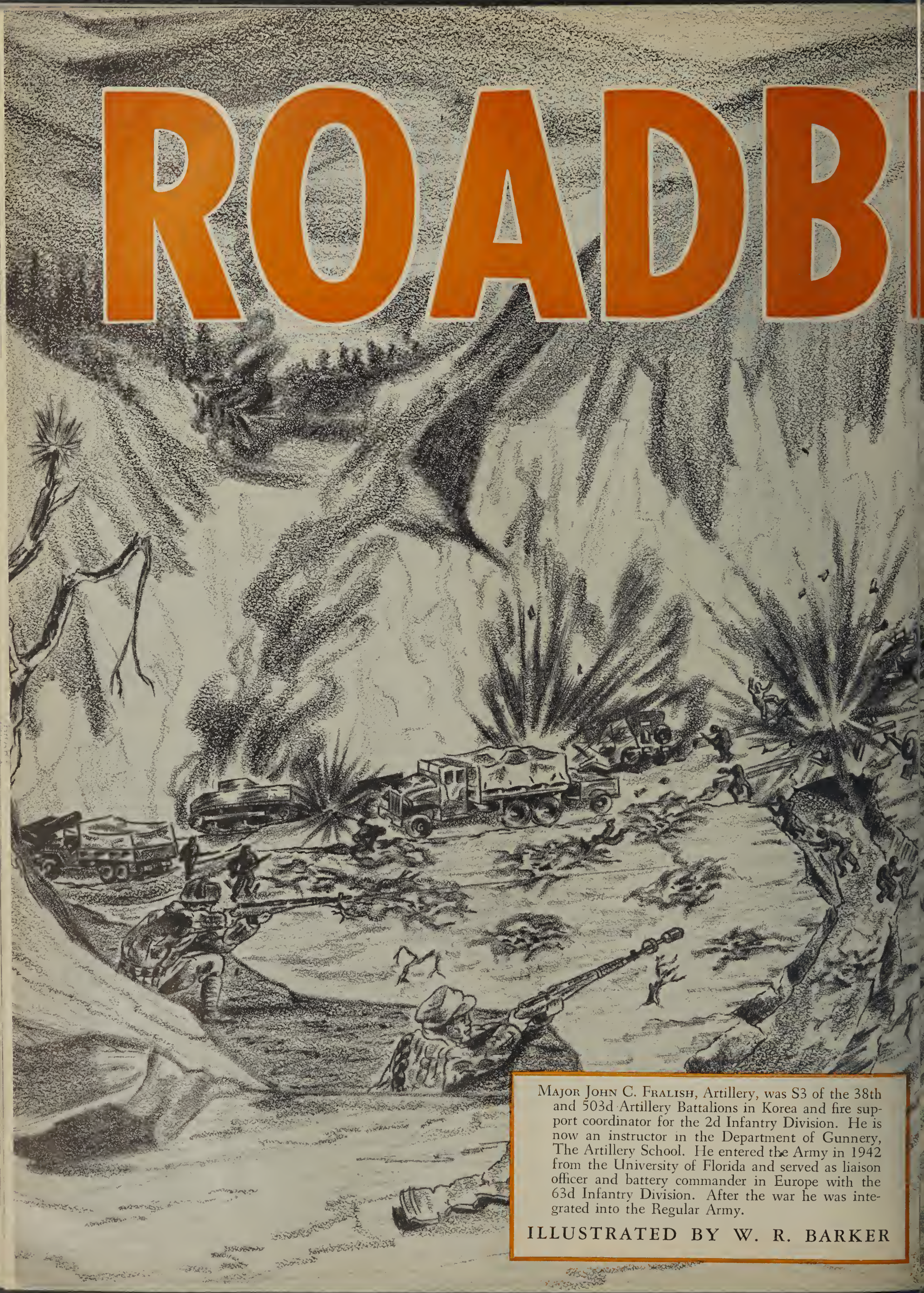
And a little experience with the broader mission will, I predict, bring a much-needed emphasis to the 105mm howitzer battery as a unit of direct support. For that battalion, like nearly every other tactical unit, has a triangular organization—three howitzer batteries. Given adequate communications, any one of the three howitzer batteries in the combat team artillery battalion can take over the battalion mission in an emergency. Present artillery gunnery techniques will enable such a battery to gather intelligence, to adjust on enemy locations, and to call for additional artillery, naval gunfire, or close air support.

For the artillery, this potential of the 105mm howitzer battery reduces the danger of too much dependence on the battalion fire direction center. Every so often, of course, the fire direction center will be bombed, shelled, or overrun.

GOOD management demands that the infantry regimental commander have a single firepower agent to deal with. Further, that firepower agent must have staff resources—S2, S3, and S4—to match priority of targets with available ammunition and fuel. Then and only then can the regimental commander exercise effective command of supporting guns, ships, and planes. And the man for the firepower mission is the direct support artillery battalion commander, with his staff, communications, observation, survey, liaison, and guns!

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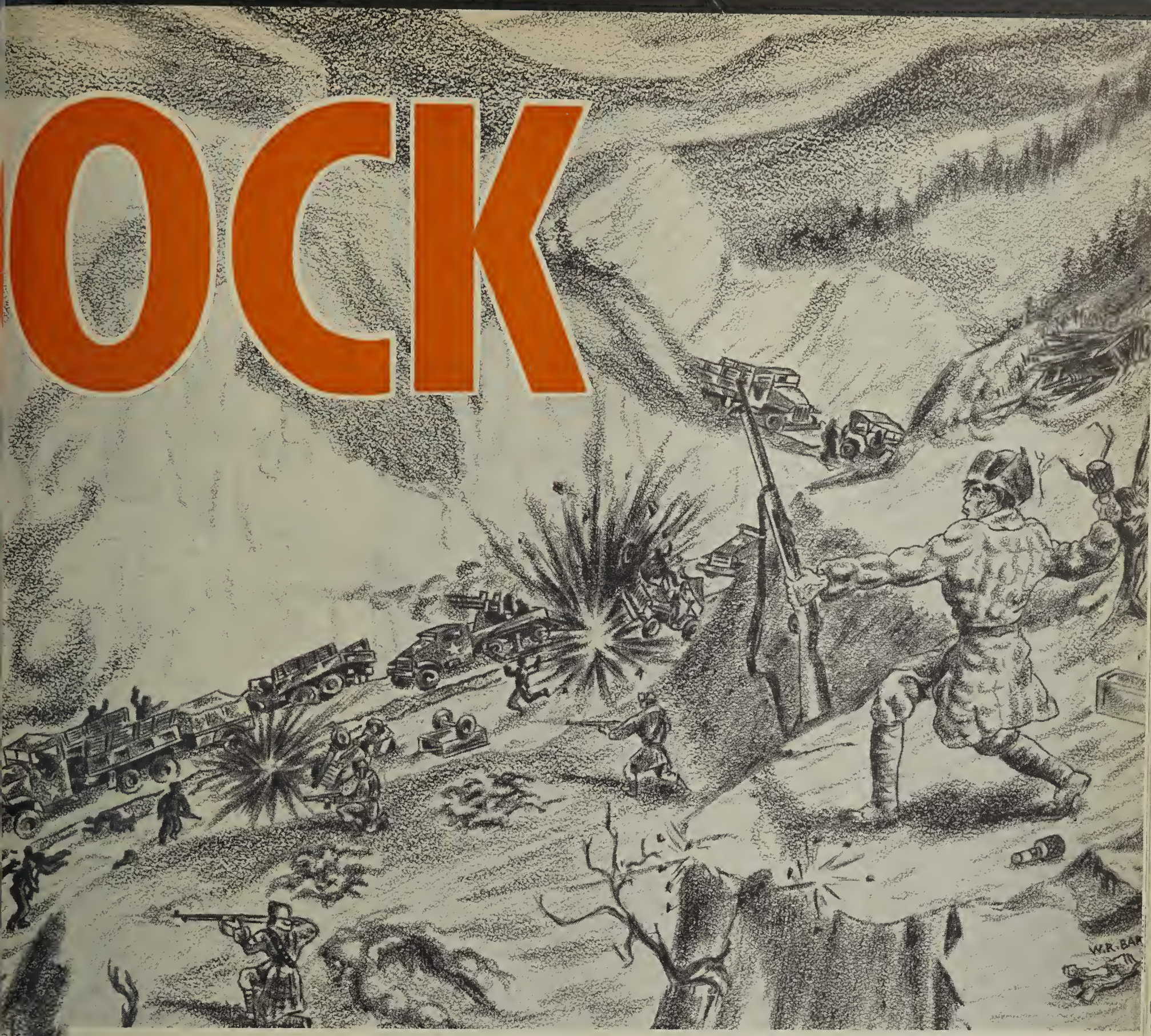
ROADB



MAJOR JOHN C. FRALISH, Artillery, was S3 of the 38th and 503d Artillery Battalions in Korea and fire support coordinator for the 2d Infantry Division. He is now an instructor in the Department of Gunnery, The Artillery School. He entered the Army in 1942 from the University of Florida and served as liaison officer and battery commander in Europe with the 63d Infantry Division. After the war he was integrated into the Regular Army.

ILLUSTRATED BY W. R. BARKER

OCK



In the bleak mountains of northern Korea two years ago, U. S. forces engaged in a perilous military operation and proved that valor, endurance, discipline, initiative and humor are still the hallmarks of the U. S. soldier.

Major John C. Fralish

I WAS in the Fire Direction Center of the 503d Field Artillery Battalion supervising a fire mission when we were told that the Chinese had established a roadblock astride the 2d Division's MSR (main supply road).

"Oh, well," we thought, "they'll send some tanks and a company of infantry down there and clean up that nuisance in a couple of hours."

That was the morning of 20 November 1950. The Chinese had launched their offensive and had rolled through the ROKs on the division's right flank. They had hit the 9th Infantry hard, and the 23d and the 38th had felt it, too. But Division thought that the Chinese could be stopped—until it found out that the units on both flanks were withdrawing and that the 2d was surrounded.

The order for a retrograde movement reached the 503d during the night of the 29th. The 9th Infantry was to go ahead, open the road, and hold the shoulders while the rest of the division with-

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drew. Then the 23d Regimental Combat Team (which consisted of the 23d Infantry, the 15th Field Artillery Battalion, some tanks, antiaircraft artillery automatic weapons units, and other attachments) was to relieve the 9th and fight the rear-guard action. A British tank unit was to fight north from Sunchon on the MSR until it met 2d Division forces coming south.

All through the night of the 29th, the 503d fired in support of the division units, and caught hostile small arms and mortar rounds occasionally. Throughout the next day the battalion continued to fire—mostly in support of the effort to break the "roadblock." This obstacle, incidentally, turned out to be a large enemy force dug in on both sides of the road where it wound through a mountain pass about two miles south of our positions.

The 503d sent a forward observer to the site of the roadblock to adjust fire for the units trying to break through. Around noon he returned, explaining that he had been relieved by an observer from another battalion. From then until midafternoon we received no calls for fire on the roadblock.

Apparently our firing did some good, though, because the column moved spasmodically past our positions all day. Now we had word that Division headquarters had passed through, followed by other units, and that Divarty headquarters was beginning to move through too. That meant that soon it would be our turn to close station and hit the road.

WE were concerned about what might happen when night came. If we followed the plan outlined in the order, we would start moving through the roadblock area about dark. Several alternate plans were discussed: An Army aviator might fly reconnaissance for another route, and we might plan to destroy all heavy matériel and equipment, if necessary, in order to use that route. Or we could plan to make an infantry battalion out of the one engineer and two field artillery battalions, and fight our way out on foot in case there was no alternate route and the MSR was closed before we got through. Also we might send a reconnaissance party to see if the road through Sinanju was still open. (We didn't know that at that very minute the 23d RCT, which was supposed to be our rear guard, was moving south on that road and was not encountering a single enemy.) Finally, we might destroy our vehicles and everything else that could not be hand-carried and walk out over the hills.

Nothing came of all this discussion—except to follow the Division's plans. I sensed disaster, so prepared to meet it as best I could. I pulled off my new shoepacs, put on my oldest, most comfortable combat boots, stuffed my pockets with clean socks, and packed a getaway bag of C rations and small-arms ammo.

Late that afternoon, perhaps 1700 hours, the 38th Field Artillery and the 2d Engineer Battalion rendezvoused next to our position to await their turns to join the column. The order of march placed them behind us. Our battalion commander went over to have a conference with their commanders.

JUST at dusk, as the last of the 37th Field Artillery rolled slowly past, we march ordered and joined the column. Within our battalion the order of march was B, Headquarters, C, and A. Behind A Battery came the 38th Field Artillery Battalion. My FDC team had two trucks in the middle of the Hq Btry's column.

We had marched about one and one-half miles when the column halted and did not move again. I radioed the Battalion executive, who was leading the column, but got no answer. I tried calling some of the other stations that I knew were up forward, but received no answer from anyone. Dismounting, I told my men (except drivers) to take up positions on the flanks, while I walked to the head of the column to find out what was holding it up.

In the glow cast by a burning shack beside the road, I met the Hq Btry commander. He had heard my transmissions a few minutes earlier, but could not reply because his jeep's engine had quit on him. He said that B Btry had apparently been attacked from both sides and was almost wiped out. We looked around and found the first sergeant of B Btry and a few men in the last vehicle. I questioned the first sergeant, but he couldn't shed as much light on the situation as did a vehicle burning on the road ahead.

We carefully surveyed the road and the area lighted by the fire of a burning truck, but could neither detect activity nor hear any noise. We decided to try to move. The first sergeant of B Btry moved his vehicle forward, and the whole column began to creep along. We had progressed about twenty or thirty yards when we saw a shadowy figure running up the road toward us, emitting hysterical shrieks and babblings. He was a B Btry aid man.

According to him, the battery had been hit suddenly from both sides of the road. The leading and trailing tractors, towing 155mm howitzers, had been knocked out and the enemy had swarmed over the column, killing or capturing all of the men. The aid man didn't know whether anyone else had escaped. The Chinese had machine guns, captured rocket launchers, mortars, and other weapons dug in on both sides of the road, and there was no sign of any friendly infantry, which was supposed to be holding open the road.

IT seemed foolish to go forward. I walked back toward the tail of the column until I found the battalion commander. I briefed him on the situation, and he decided to find the commander of the 38th Artillery Battalion and discuss it with him. The suggestion was made that we destroy our equipment and fight it out as infantry, but the executive officer of the 38th was against this. He requested permission from his CO to put direct fire on the hills on our left flank. Permission was granted, and the 105s of the 38th barked in the darkness.

Someone suggested that we should get the engineers in on the discussions, since they had had experience in fighting as infantry. The CO of the 38th liked this idea, so he instructed his executive and me to go back along the column and try to find the CO of the engineers. We started, but had not gone too far when Chinese mortars dropped a barrage on the road ahead of us. We heard the cough of the first rounds on the way, so we hit the ditch and waited until all of the shells had burst. They were too close for comfort. We decided that it was too late to go searching for the commander of the engineer battalion, since it looked like we would be attacked shortly. Hostile mortars kept firing with growing intensity. Bugle calls pierced the night, and during lulls in the firing we could hear the Chinese laughing and talking in the distance.

The CO of the 38th, my own battalion CO, and I made a reconnaissance to the head of the column to see if there was any hope of getting it in motion.

As we approached the front, we saw a knocked-out vehicle on the right shoulder of the road and one of our trucks halted in the center. We spread out when we reached these vehicles so that the CO of the 38th was in the center between the two vehicles, my CO was on the right side of the road and I was on the left shoulder. The end of a ridge that paralleled the road up to this point turned toward the road; a little beyond was a culvert, and a dry creek bed ran off to our left.

As we stood listening and looking, a machine gun opened up from the culvert, and slugs hit the truck near my head. Several small steel particles imbedded themselves in the bridge of my nose, and a machine-gun bullet grazed my chin and left a burn on it. I hit the dirt, and began crawling back. I met my CO, who said that the CO of the 38th was dead.

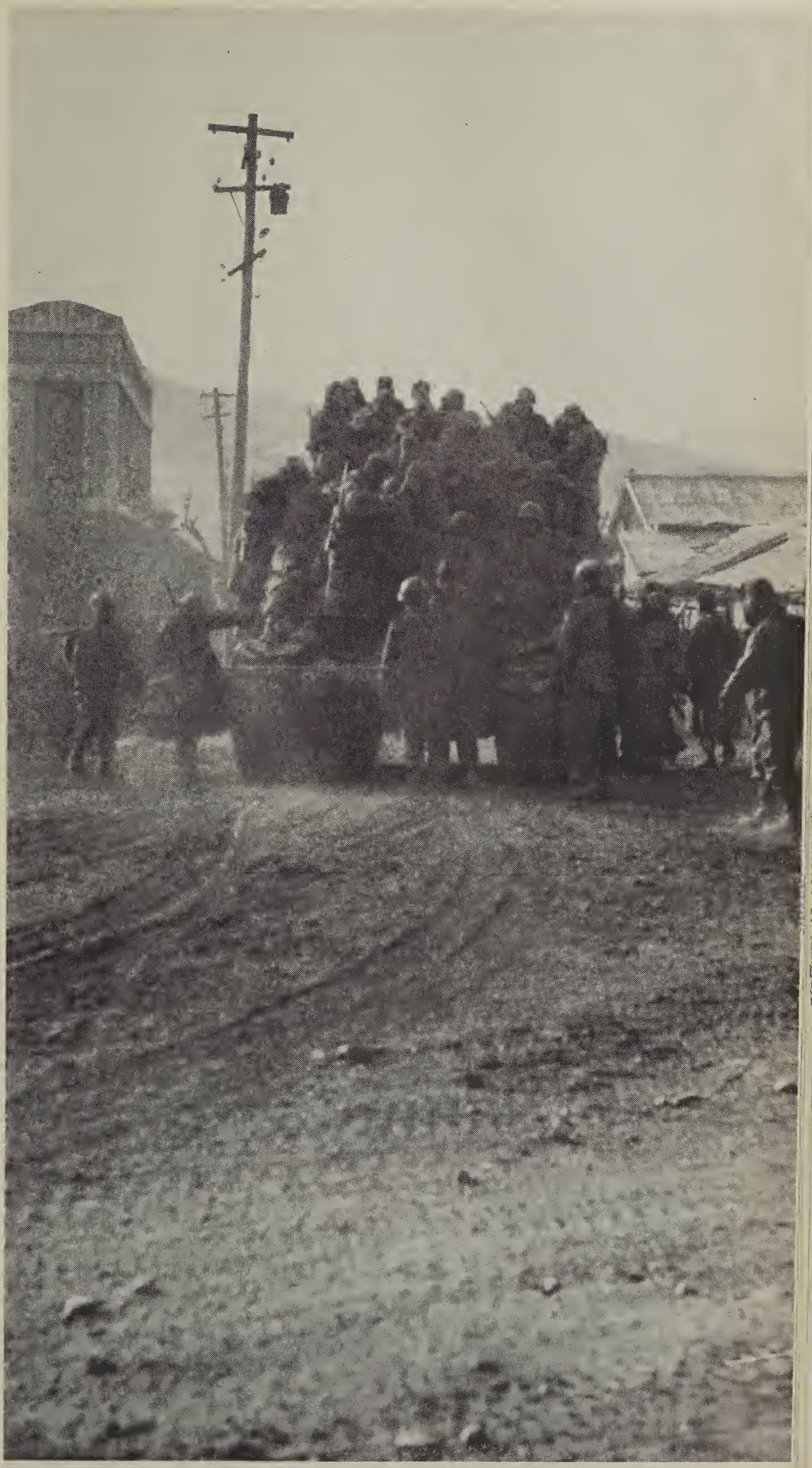
As we drew back, we heard digging on the ridge to our right. Thinking they were our own men digging in, I shouted, "Who's digging up there?" No answer. I repeated the question two or three times, but still no answer. Then we knew. The Chinese were no more than fifty yards from us!

ENEMY mortar fire was taking a heavy toll. Ammunition vehicles were ablaze up and down the column, and the road was partially blocked in several places. It looked as though we would have to fight it out right here—with the enemy holding the high ground on both sides of the road and the three battalions strung out in a long column.

Bugles blared around us, and we could hear horses neigh and snort. I suggested we fire 155mm howitzers across the column and into the Chinese digging in on the ridge. The battalion commander said OK; that is the last time I saw him.

The C Btry commander put one of his howitzers in position and a lieutenant from A Btry went to the rear to bring up the four AAA automatic weapons. These were two twin 40mm guns on light tank chassis (M-19s) and two quad caliber .50 machine guns on half tracks (M-16s). I sent out several men for local security of the howitzer and began to fire it across the column at the ridge, sighting the piece on enemy positions by boresighting for each round. When we fired the third or fourth round, the enemy replied with a captured rocket launcher. The projectile hit the shield of our piece, damaged the traversing and elevating mechanism, came through the shield, and took off the number one cannoneer's head.

The antitaircraft AW vehicles pulled up. I pointed out an enemy machine gun in a culvert and directed the gunner on the first M-19 to take it under fire. The other AAA AW gunners opened up on enemy positions along the ridge. After the gunner fired on the machine gun in the culvert we approached it cautiously and found six dead Chinese and one old Japanese-type machine gun. Then I saw a body lying on the shoulder of the road, and recognized it as the



Doughboys of the 2d Infantry Division swarmed aboard a tank during the withdrawal from North Korea in December 1950.

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CO of the 38th. He was still alive. We wrapped him in blankets and I looked around for an ambulance. Ammunition and fuel tanks continued to explode. Safety was not to be found in the vehicles. Surveying the scene, I thought, "No point in trying to avoid being hit." I prayed silently and kept moving.

Not finding an ambulance, I asked several men what had happened to the medics. Someone said that one of the medics had been hit; the others were "somewhere out there" taking care of the wounded. I gave up the search and went back to help put the colonel on one of the other vehicles. The soldier with whom I had left the colonel had already gotten help and had placed him on one of the M-19s.

I walked to the head of the column, which had not moved an inch since I had left. Three or four junior officers had gathered there by now, and I told them to push forward one M-19, then some light vehicles with wounded, then an M-16, some more light vehicles, then the other M-19, and so on until we had everything moving. Riflemen were to protect the flanks.

I urged the driver of the leading M-19 forward, instructing the gunner to return any hostile fire the source of which he could locate. The riflemen had instructions to shoot at whatever targets they could find, and if no targets could be seen, to fire generally toward the ridges and enemy positions. Everyone was to make plenty of noise. We figured that stealth would be impossible (the enemy already knew where we were) and that noise and firing would help our morale.

The leading M-19 moved slowly along the road. At the narrow place across the culvert the road was covered by enemy fire, and a knocked-out vehicle held up the column. A truck was halted a few paces from this point and the driver could not be found. A volunteer jumped in the truck to drive it past the knocked-out vehicle, but a burst of fire from an automatic gun hit him and he slumped in the seat.

For a time after this I remember nothing. I was told later that I mounted the cab of the truck and drove it through the bottleneck. At any rate, we somehow did succeed in neutralizing the hostile fire on this point and got thirty to forty trucks and the four AAA AW vehicles moving south along the road.

During the fierce fighting many individuals performed courageous deeds. The operations sergeant of the 503d (now a battlefield-commissioned lieutenant) neutralized an enemy machine gun by firing at it with his carbine on full automatic from an exposed position so that other soldiers could rescue a number of wounded. Another member of the fire direction center of our battalion took a bazooka and went after two machine guns that were raking the column. He was wounded in the process, but he knocked out the two guns.

Others, whose identities are not known but whose deeds were no less heroic, are now dead or prisoners of the Chinese. There was the work of one soldier from Battery A. A machine gun on the slope of a ridge fifty yards away was raking our vehicles and the men in the ditch with fire. This brave soldier sneaked up through the shadows behind the enemy machine gunner, grabbed the hostile weapon, and swung it at the enemy's head. The flabbergasted Chinese jumped up and disappeared over the ridge amid a hail of bullets from our men who were watching the encounter. But the American soldier never came back.

WE moved at a snail's pace, and it was difficult to keep the vehicles moving —cursing, begging, threatening, and practically pushing them forward by hand at times. When the lead vehicle moved, a few other would follow, but others farther to the rear would get stuck at places where the road was blocked by stalled or overturned trucks, disabled tanks, artillery pieces, or enemy tank traps dug all the way across the road. Sometimes it was necessary for men to pick up a stuck vehicle and shove it back on the road.

We kept the column moving. When I became exhausted, I crawled on the nearest vehicle and rode until I could breathe normally again. The men walking would occasionally spot an abandoned jeep or truck that appeared to be in good condition, and they'd try to get it started. Sometimes they succeeded, and then more could ride.

Though the column drew away from the site of the roadblock it was under constant enemy observation and fire of all types from the high ground on both flanks. The gunners on the AAA vehicles and the riflemen shot back promptly, and we suffered few casualties from the running fight that lasted throughout the next eight miles.

As we rounded a curve in the road, we found ourselves at the top of a hill overlooking a small town. We could see that the enemy held the town in considerable strength, and apparently some friendly forces from the south were fighting for control of the road down there. The fire fight was raging furiously, with tracers flying in every direction. Soon we were fired on. The men scattered and took cover while the vehicles backed behind an embankment for protection against the hostile fire.

I called the officers together for a brief conference to decide our next move. I had a map, but no flashlight. Someone produced a few matches and a cigarette lighter, and with this primitive illumination we studied a map underneath an overcoat until the light expired. We determined a direction if we had to take to the hills, and announced it to everyone.

This raised the problem of what to do with the wounded who could not walk. The drivers were asked whether they wanted to take these wounded and try a run for it through the town. Most of them wanted to try it, and soon enough drivers agreed to take all of the vehicles through. The walking wounded, about 100 men and three officers, were asked whether they wanted to take the road through town or make a beeline over the hills for Sunchon, which we figured was about ten miles away. (Actually, the distance turned out to be about twenty miles.) The decision finally reached was to send a bodyguard of two officers and a number of men along with the drivers through the town with the seriously wounded. The rest of us would go over the hills to Sunchon.

IT was well past midnight when we started out. We headed east to skirt the town, keeping well up on the slope along the edge of the sparsely wooded top of the hill. We walked as fast as we could through the clear and extremely cold night. Our course was uphill most of the time, and I had to discard my rubber overshoes because they made the going too difficult.

As we hiked along, we could hear the engines of the AAA AW vehicles as they neared the town. When they entered the town, we heard a brief, furious fire fight, and then the engine of only one vehicle as it sped away to the south. The officer who led the vehicle column later described the action which occurred there.

The column reached a bridge across a small stream in the center of the town only to find that the bridge was blocked by an M-16, abandoned earlier when an antitank gun had demolished one of its front wheels. There was a bypass to the left of the bridge, and a handful of soldiers had taken up firing positions in it and around the bridge. They were having a "fine time" as they described

it, fighting off charge after charge by Chinese and North Koreans from the nearby houses. There were Turks, South Koreans, and both white and Negro Americans in this small force. This was the fire fight that we had observed from the hill.

As the leading M-19 headed for the bypass the enemy launched a new charge. One enemy soldier dashed for the turret of the M-16 on the bridge, apparently hoping to turn the quadruple caliber .50 machine guns on U.N. troops. A Negro warrant officer, who later said that he had never before thrown a hand grenade, calmly tossed two grenades into the turret from about 30 yards away, completely disabling the turret and the machine guns. Hostile guns hidden in the surrounding shadows took a heavy toll of our vehicles. Only one finally made it through the bypass. This was the leading M-19, on which the wounded colonel had been wrapped up and tied down so that he would not freeze to death or fall off.

Many men escaped on foot and made their way back to our lines, but most of the wounded who could not walk were either killed or captured.

THE group I was with climbed the hill overlooking the town until suddenly we were taken under fire by what seemed to be caliber .50 machine guns. The fire certainly was not friendly, but we never found out whether it was enemy. It scattered us and some men hit the ground until the firing stopped while others took off rapidly.

The going was extremely rough. The slope was so steep in places that we had to grasp small trees to keep from falling or sliding down the mountainside. Once we stopped briefly to rest, but the temperature was so low that I soon realized we would freeze if we stopped for long, so I aroused everyone and we started again.

At daylight we were well up into the mountains overlooking the town, and could look down on the activity there. Some enemy soldiers, civilians, horses, and Russian jeeps were all we could see.

We continued our march. About noon we came to a place overlooking the junction of the Taedong River and a smaller stream, about fifteen miles from our destination. Here we halted and discussed the situation. An Air Force AT-6 Mosquito flew over. I pulled off the parka I was wearing, turned the white side out, and waved it to attract the attention of the pilot. The plane flew low, circled and flew away. Later 503d Battalion airplanes came to our aid.

While resting near the river junction we saw troops plodding northwest along a road several thousand yards to the east. They seemed to be wearing American uniforms, but were too far away for us to identify them positively, so we kept out of sight until they disappeared. About an hour later we saw them again, south of the position where we first spotted them. This time we recognized them as Americans, so we hailed them and waited in a small wooded area until they approached.

THE addition of this group gave us a strength of about 200. We organized flank and rear-guard security, appointed a first sergeant, and from then on proceeded across country in a more secure and organized manner. We selected the easiest route in order to save energy and time, and marched with the wounded in the front with the rest of the men following in a column of twos.

Eventually we reached the Taedong River, but there was no way to get across except to wade. Chunks of ice were floating on the water and solid ice lined the banks. Nevertheless we waded hip deep through the cold current fifty yards to the other side. The rocky bottom offered little foothold, and the current almost swept our feet from under us.

When we reached the other side, we found ourselves in a wide, dry rice paddy, with shocks of rice straw all over the field. We built fires and dried our socks, trousers, and boots. While we were doing this, a light airplane circled over us, and I recognized the pilot from the 503d FA. He circled and surveyed the area, apparently searching for a place to land. I made a quick reconnaissance and found that by clearing the large boulders from a bar along the river a field for the plane could be prepared.

We worked furiously, and within minutes the plane landed with two cases of C rations and a five-gallon can of drinking water. The two most seriously wounded men—a ROK and an American—were put aboard the plane, and the pilot took off. We had marched some distance when the other pilot from the 503d FA came over, dropped another case of C rations, and flew cover for us, guiding us along the most favorable route.

About 1700 hours, we reached the Taedong River again. Troops of the 1st Cavalry Division were waiting for us with a boat, and they ferried us across. The wounded were immediately evacuated to medical aid stations by jeeps.

We marched for two or three miles to the outskirts of Sunchon where we were picked up by trucks.

Eventually we were delivered to our own units—or to what was left of them. For days, others who had escaped the trap straggled in singly and by twos and threes. They told of gallant stands made by small bands, overrun by superior numbers after their ammunition was exhausted, or which were wiped out while attacking enemy positions.



Two months before the Chinese intervention, these 2d Division artillerymen had turned captured Soviet 76mm guns against the enemy in the Naktong Valley.

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★ CEREBRATIONS ★

Our literate cocktail-hour tacticians stand to receive as much as $10.00 for their contributions to this department. However, the price for those "dashed off" with scant consideration for the rules of composition and rhetoric will be much less. Hold them to four or five hundred words and type them double-spaced.

Clrty or Brvty

One of our recent manuals, FM 21-30, makes this simple injunction, "Abbreviations should be used only when the meaning is unmistakable and *when the abbreviation will serve a useful purpose.* The unexpected appearance in a message or order of an infrequently used or unfamiliar abbreviation *will result in confusion and lost time.* Abbreviations are of definite value where a lack of space makes their use necessary or desirable or wherever a considerable saving in time and material will be gained thereby."

Now, in a field order given in a problem used recently at one of our service schools, the following gobbledegook appears: "All mvmt fwd present loc for recon and ln under div ctl."

The manual makes it abundantly clear that abbreviations are to be used with extreme care—indeed, there is an implication that the use of abbreviations should be the exception rather than the rule.

If we glance, however, at the orders issued as models at any (and perhaps all) of our schools, in our garrisons, in administrative orders and practically every place else, we find that it has become mandatory, in actual practice, to use abbreviations.

Further, it has become customary to use abbreviations in conversation and in oral presentations, so that a conference of staff officers not infrequently sounds like—well, I can't think of an apt analogy. (Maybe it is a part of a deep laid plot which is being concocted in the hope that the enemy will become as confused as we are ourselves.)

Shd we hv CIC and ASA invs stf envstns to mke sre tht ths obj is flly achvd?

Field Manual 21-30 includes sixty-seven pages of authorized abbreviations, any or all of which might be used and all of which must be known if the communication in which they are used is to be intelligible to the unfortunate who has to decode and decipher it. He must have either a most phenomenal memory, or must carry a copy of the manual with him at all times.

Of course, abbreviations do save time. Think of the manhours saved by writing "mvmt" instead of "movement," and "colm" instead of "column!" And poor old Colonel A, receiving the message, is deeply grateful because of the time he saves in the instantaneous glance at four letters, instead of having to take in seven letters.

Would it not be appropriate to include in our critiques a comment to the effect, "You used abbreviations in your order unnecessarily. You saved no time and you lost in clarity."

Or, if that is too old-fashioned, then let us, by all means, start indoctrinating all officers in a new language, so that they can understand military English as written. If we must do that, it should be basic that we nvr use fl wds whn abbrvtns cn be apld. Strv fr tlg brvty, nt clrty. If our own trps unble undrstd Os, nthr cn enmy.

Col Dbld Clndnn
Amr

Assault Fire with Grenades

We all agree, do we not, that the most critical period of an attack on a dug-in enemy is from the time our artillery and mortars lift their supporting fires until the objective is actually overrun by our assaulting troops? If the enemy properly prepares his defensive position to include covered foxholes and weapons emplacements, he will still be manning his individual and crew-served weapons after our fires lift. Even though he is dazed and stunned from the pounding of our heavy stuff, he will be able to fire final protective fires along his main line of resistance. He is definitely in a more favorable position than our men. From positions organized so as to be mutually supporting, he can actually aim his weapons as our attackers advance toward him.

But the attackers, tired by the exertion of the advance from the line of departure to the assault position, have to move in without the help of artillery and mortar fires. The assaulters are exposed and their small-arms fire is relatively ineffective against the covered enemy. Worst of all, when attacking up steep forward slopes, the assault may have to commence as much as 500 yards from the objective without supporting artillery and mortar fires.

How can we provide more effective assault fires to force the enemy to keep his head down while our assaulting troops approach and overrun his position? Unaimed small-arms fire is not enough. In addition to rifle fire our assaulting troops should shower the enemy position with a rain of small, high-explosive projectiles. We need a weapon that can throw our fragmentation grenades about 500 yards.

It should not be difficult to design a simple, lightweight grenade projector that could propel the grenade a maximum of 500 yards and a minimum of 40 yards. The grenade would need an impact fuze.

With this weapon we would be able to perform the "school solution" for an assault. As soon as the supporting artillery and mortar fires lifted (say when our attacking troops were about 500 yards from their objective), one man from each squad would stop to shower the enemy with grenades from a grenade projector. The rest of the squad would advance, firing assault fire. The grenadier would displace forward to a new firing position as the assaulters moved in. When they were within effective rifle-grenade range of their objective, about 200 yards, they would fire grenades. When they got closer they would throw hand grenades, fire ball ammunition, or use their bayonets.

I hope you combat veterans think that such an assault weapon is worth trying. It could be used for smoke grenades, on patrols, at road blocks, and for local protection of small installations against enemy infiltration, and for protection of vehicles.

One thing is most important: we would have to emphasize the use of the rifle-grenade launcher in our training.

Maj. George K. Maertens
Infantry

Secret Stab in the Back

Except in a few fortunate cases, an officer seldom gets the assignment he most ardently desires and when he does, his luck is trebly compounded if he finds himself serving under a good CO. The efficiency reports he can expect from the bad one, or the fairly good but ultraconservative officer, may ruin his career or, at the very least, set back his opportunity for promotion and better assignments for years.

If indeed, "all the brothers were brave and the sisters virtuous," as the

saying goes, quite obviously each officer's efficiency report would be a model of perfection with unfailing justice to the rated officer and all fairness to the military service. The hapless individual with low ratings, if ever he had a chance to get in calling distance of the Adjutant General's Office in the Pentagon, could drop in and make a careful study of his weak points, knowing that they were such, and profit by his visit.

We all have faith in an honest appraisal of an officer's performance of duty and there can be no quarrel with such. But this piece is aimed directly at the system that permits, without question or without reference to the rated officer, an efficiency report to be placed upon his record that is unfair and which cannot fail to injure his military career.

Let's get down to cases: First of all we have the irascible, erratic type of superior officer. Usually he has been around for a long time and his failure to attain higher rank has so soured and embittered him that he sees no good in anyone and makes life hell on earth for his subordinates who plainly detest old "Snarl 'n' Snort" but do the best they can while praying for a speedy release. To request a transfer from such unhappy climes invariably brings down the wrath of the Great Man and all of his vassals. He knows that practically no one serves him willingly and he'll block such a request even while venting his venom on the man who dares attempt such a thing.

In the fullness of time, reassignment orders come through and you leave, breathing a sigh of relief and saying with feeble assurance, "Well, maybe the old hellion isn't as blackhearted as he seems. Maybe he'll be decent about my OER." You're an optimist, if you do. The odds are better than even that you will have been knifed neatly in the back, no matter how cordial your formal farewell may have been.

If, on the other hand, the old gentleman's pettiness and arrogance finally catch up with him and he is relieved, then, in the fullness of his unbounded fury, he will make a Roman holiday out of the OERs of his junior associates in the mistaken theory that every last one of them is to blame for his predicament. Believe me, these things do happen. And there ain't no recourse. The AG will uphold the old gentleman at least ninety-nine times out of the proverbial hundred. That is, of course, if you get around to see the report in time to raise a point of self-defense. Quantities of evidence are needed to prove either "personal prejudice or insanity." In your own mind, there is no doubt of one or the other, or perhaps both, and you may be able to round up copious letters from parties who agree that you have had a raw deal. But short of a miracle, the cold figures of the Overall Efficiency Index will continue to stare you right in the face. They also stare into the faces of various promotion and other evaluation boards. At any rate you need a long string of straight superiors to overcome that one, friend.

Having recovered from the horrors of such an assignment you take a spot of leave but cut it short, being eager to take on the new detail and hoping for the best. This time you hit the jackpot. A good assignment with swell people. A happy deal all around and, what is more important, a chance to redeem yourself on the record and in your own esteem. That is wonderful as far as it goes, but let's look a little closer. Colonel "Good Joe" is just that. A considerate gentleman of the old school. It's a pleasure to work your heart out for him and an honor to serve under him. But what you don't know and never will find out unless you make it a point to visit the Pentagon at a later date, Colonel Good Joe still lives in the Old Army where efficiency ratings were either "satisfactory" or "unsatisfactory." Since the Colonel in all decency and charm will gladly pin a medal on you as a result of a fine bit of combat action, he feels that "very satisfactory" is a mighty good rating and no man is superior. So even if you see his report on you at a later date, there really isn't any comeback. The man is and was honest as the day is long. Much too conservative, however, to bring you up from one of the lower thirds.

That tour wasn't wasted. Hell no. You enjoyed the duty. You learned a lot, too, and you never had better quarters on any post. Of course, if you're about due to go to school at Leavenworth you'd better forget it. Career Management will tell you quite frankly that your OEI isn't quite high enough for that. Better luck next time!

If such a thing were possible, Colonel "Top Notch" should be required to hang a sign on himself saying, "Come on over and join a good outfit, lads, I'll work your pants off, but if you produce, the rewards are great!" Such a one should have been a general long ago. He'll make it too, if the lucky chaps who have served with him can help by singing his praises. With him, your efficiency report will not be anything less than it should be, probably somewhat better, and there will likely be a commendation or two in the 201 file as well. Where is Colonel "Top Notch" these days? We know he exists. Thousands would beat a path to the foremost foxhole in Korea to serve with him.

Since none of us can hope to choose Colonel "Top Notch," even fairly often, we're all in constant danger of running afoul of old "Snarl 'n' Snort" or perchance an agreeable, but largely personally unprofitable tour with Colonel "Good Joe." But can't the system be altered just a little to take the curse off the "super secret stab in the back"?

The rated officer should be shown *every* ER rendered on him and be required to sign a statement to accompany the form to the effect that "I have read the foregoing ER and have no [or the following] comment to make." Then, and then only, should the report be forwarded to the indorsing officer for his action and if the ER is obviously damaging to the rated officer the indorser should make his own investigation before indorsing it forward. In this way, "Snarl 'n' Snort" would be careful to be able to justify every bit of his nastiness, and "Good Joe" might have it gently pointed out that times have changed and did he actually intend to seriously damage the career of a good or better-than-average officer?

For those who have been unjustly rated, any past OER reasonably subject to question should be submitted to the rated officer for suitable comment. Then an honest reappraisal should be made in fairness to the officer himself. Without this, such reports should be disregarded and the system reformed to permit comment by the rated officer prior to indorsement as suggested above.

ONE WHO'S HAD IT!

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FRONT and CENTER

Rotation & Promotion

Mrs. Anna Rosenberg returned from Korea and announced that every effort would be made in the Far East Command to maintain the present rotation point system. It will be difficult in view of the Army's manpower problems but if the present crisis is weathered it is possible that by early spring the outlook will be brighter.

Promotions of both officers and enlisted men are retarded by lack of money. Partly this is because the Congress has never faced up to the continuation of the Korean Conflict and has based all appropriations and authorizations on the supposition that the conflict would not drag on as it has.

Mrs. Rosenberg said that many enlisted men and junior officers in Korea are performing jobs calling for higher ratings. One suggestion for overcoming this was to authorize temporary promotions for Korean service only. Promotion would be for a specific job and the man getting it would revert to his former rank when he left that job.

In Washington it was revealed that Pentagon planners are giving thought to a fair promotion policy for officers and men who are prisoners of war in Communist hands. This is an admittedly difficult problem that was never satisfactorily solved during or after the Second World War.

The promotion crisis is not solely an Army one. Other services are unhappy too. Both the Navy and Air Force have been harder hit by the Davis Rider.

Chemical Weapons Battalion

Transfer of the 4.2-inch mortar to infantry outfits doesn't mean that the Chemical Corps will be deprived of combat battalions, Maj. Gen. E. F. Bullene, Chief Chemical Officer, told his Corps in a statement that lauded it for giving the Army "a fine weapon."

The 2d Chemical Mortar Battalion will be reactivated as the 2d Chemical Weapons Battalion and "will be a unit specifically designed, equipped, and manned to the needs of our tactical mission," Gen. Bullene said. He didn't reveal what weapons the Battalion would have or when the reactivation would take place.

Qualification Tests Revised

An improved series of Armed Forces Qualification Tests to be used in determining the acceptability of men for enlistment or induction into the Armed Services have been adopted.

The new tests are designed to measure more accurately the level of mental ability of prospective entrants into service. Known as AFQT 3 and AFQT 4, they will go into effect in January, 1953, and will replace AFQT 1 and 2, which have been in use since 1950.

Introduction of the improved tests does not change the level of mental ability necessary for enlistment or induction.

AFQT 3 and 4 are part of a plan to install new test forms periodically, the Army said. This insures that test contents do not become common knowledge, and permits changes based on the constant and extensive research which is being done on problems involved in selecting personnel for the Armed Services.

The new tests are based on a great number of test questions which were tried out on a representative group of men.

One important addition to the revised test forms is a group of questions relating to the many jobs in military service which involve mechanical skills. The new questions measure basic mechanical ability associated with tools used in mechanical jobs. They will facilitate selection of men who are best qualified for jobs requiring mechanical ability.

THE ARTILLERY SCHOOL

280 Gun Arrives

The Army's largest mobile artillery piece, the 280mm gun which can fire an atomic projectile, has been shipped to Fort Sill and assigned to Battery A, 867th Field Artillery Battalion. Up to now the gun has been in the hands of Ordnance technicians and was fired for the public at Aberdeen Proving Ground, Md., early this fall.

News reports have hinted that the gun will be test-fired with the atomic projectile in Nevada before very long. No official announcement of this has been made, nor is one likely, at least until after the test is completed.



ROTC cadets of the Siena College Field Artillery unit raised the money and built this shrine to the patron saint of artillerymen on the campus of the college at Loudonville, N. Y. The entire cadet battalion attended the dedication ceremonies conducted by the Rev. Thomas J. Giblin, OFM, and Lt. Col. William Law, PMS&T at Siena. Capt. Angelo Cicciu, assistant PMS&T, was chairman of the fund-raising and building campaign.

Infantry Exercise

The Artillery School has prepared a map exercise (CA-831.4), *The Reinforced Rifle Company in the Attack,* to familiarize artillery unit commanders, officers, and men with infantry's tactical methods and problems. This exercise, which is presented by lecture, conference, practical work, and demonstration, was developed to emphasize coordination between infantry and artillery and to help artillery units give effective support to infantry.

The problem is based on the tactical situation used in TF 7-1521, *Rifle Company in the Attack.* Students are given first a short review of the principles of attack and the organization of the rifle company. They are then required to plan an attack for a rifle company, emphasizing troop leading, coordination of fires, use of tank-infantry teams and coordination with engineers, and reorganization and consolidation of the company objective. Complete and intelligent fire planning prior to the attack is emphasized.

After the attack plans are finished and discussed, the students are shown TF 7-1521, which pictures a rifle company actually attacking over the same terrain, under the same conditions, and against the same enemy used by the students in making their plans. The film illustrates how the company commander maintains communications, controls his platoons, and influences the action by shifting and massing his supporting fires.

An efficient and inexpensive method of instruction, this exercise can easily be modified to meet the requirements of different training programs and to conform with the military background of students. It is presented to the advanced class, and has been recommended to be included in all TAS programs of instruction.

New Theodolite

The new Universal Theodolite Wild T-2 is being introduced to students in three courses with twelve hours of classroom and practical instruction scheduled. The Wild T-2 Theodolite is a fully-inclosed, optically-read, directional instrument of Swiss manufacture that can be read to one second and interpolated to 1/10 second. It has been approved as the interim instrument to replace the 20-second transit in the Field Artillery Observation battalion, and is easier to read than the transit. The Wild T-2 has been recommended for issue to headquarters and headquarters batteries of division artillery and to heavy and very heavy field artillery battalions.

Helicopter Ambulances

The Department of Air Training is training Army Medical Service officers in

basic aviation and helicopter operations to provide pilots for the new Helicopter Ambulance units. These units, organized as an integral part of the AMS in theaters of operation, evacuate wounded soldiers from forward combat areas. There are nine AMS officers attending the current 19-week Helicopter Transport Pilot course.

The first Helicopter Ambulance unit was activated at the Medical Field Service School, Fort Sam Houston, where it is used for training purposes. Additional units will be formed when trained men and equipment become available.

Army Aviation Film

A film on Army aviation, photographed in three parts at TAS by the Signal Corps, covers the training of Army aviators and features the many missions assigned to Army aircraft, including the conduct of fire, column control, camouflage inspection, evacuation of casualties, rescue, supply, wire-laying, message drop and pick-up, and radio relay.

Heliport

The Department of Air Training has opened a heliport on what was once a hard-surfaced truck park. The pavement has been marked for take-off, landing, and hovering lanes. A maintenance building and a windsock were obtained and the heliport was in business.

The heliport is the forerunner of the Army's first airport specifically designed for helicopters. It will be built early in 1953 at Fort Eustis, Va. There the Transportation Corps will conduct training in helicopter operations. The proposed heliport will have a control tower, administration building, hangar, warehouse, night lighting, and fuel storage facilities.

Calibration Range

The Artillery School has installed a permanent calibration range to be used to determine corrections for gunnery research projects. It consists of two poles spaced fifty feet apart with a hoop-shaped magnetic coil mounted on each pole. The artillery weapon to be calibrated is sighted so that a magnetized projectile can be fired through both hoops. A chronograph measures the time required for the shell to pass through both hoops. From this time interval, the actual muzzle velocity of the weapon can be determined. For field artillery weapons, figures obtained are accurate to within two feet per second.

THE INFANTRY SCHOOL

Tank Maintenance

A 31-hour course in the maintenance and operation of tanks, discontinued in 1950 because of personnel and equipment shortages, has returned to the curriculum of The Infantry School.

Five M46 medium tanks will be used in the shop maintenance and familiarization phase and five M47 medium tanks are to be used for the field maintenance and driving instruction. Students in the Motor Transportation Course, Unit Automotive Supervision Course, and the Infantry Officer Advanced Course will receive this instruction.

Swing Landing Trainer

A swing landing trainer has been developed for use in teaching airborne students proper parachute landing techniques.

The trainer is a platform 14 feet high with steps at each end. A large wooden overhead frame extending several feet away from each side covers the platform. Four parachute harnesses are suspended (by a block and tackle arrangement) from each of two sides of the frame so that a total of eight students can be trained at one time. Each student is buckled into the harness at his training station on the platform; at a signal he jumps over the side and swings back and forth under the frame just as he would under a canopy in a normal parachute descent. An assistant instructor at the block and tackle control lowers the student slowly until the student is four or five feet from the ground, then trips a lever which causes the suspension system to go slack, dropping the student to the ground.

Rifle Marksmanship

As a means of giving the coach added incentive to train his pupil more closely during rifle marksmanship training, The Infantry School has adopted a "buddy" system that allows the coach to add extra points to his score if his pupil qualifies.

A coach whose pupil qualifies as expert gets 10 points added to his score. If the pupil qualifies as sharpshooter, the coach gains seven points; for a firer's qualification of marksman, the coach gets three points. No deduction is made if the pupil fails to qualify.

Model Foxholes

The Infantry School is using "cutaway" foxholes as training aids in field fortifications training. The new positions are built into the side of a defile so that the students can get a clear, unobstructed view into the holes. Previously, students could only peer down into holes or look at stakes driven into the ground to represent positions.

Viewed from the other side, the foxholes appear just as they would to an enemy.

In addition to regular two-man foxholes, rocket launcher and machine gun positions and bunkers have been constructed.

Field Fortifications

Realistic field fortifications for a platoon in the defense have been constructed in the Davis Hill area of the Fort Benning reservation. The positions are actual size and are made of logs, sandbags, and old crates. Tunnels connect the bunkers and trenches and the entire position is completely camouflaged.

Infantry School Instructional Material

The following new instructional material suitable for non-resident as well as resident instruction may be ordered from the **Book Department, The Infantry School, Fort Benning, Ga.,** at the prices shown. (The COMBAT FORCES Book Service regrets that it cannot handle orders for these pamphlets.)

WEAPONS DEPARTMENT

Marksmanship, Preparatory Training, Carbine M2: No. 1126. Sighting and aiming: Positions; trigger squeeze; sustained fire; sight changes, effect of wind, etc; examination prior to range firing. 4 hours. 6¢

Technique of Rifle Fire: No. 1265. Field target firing. Introduction to field targets to include squad control, issuance of orders, distribution of fire, teamwork, target control, and firing limits. Practical work in field target firing. 4 hours. 10¢

Sniperscope Firing: No. 1280N. Familiarization firing with sniperscope. Concurrent training in use of binoculars at night. Use of matascope. 3 hours. 10¢

Night Vision: No. 1282. Introduction and background of night vision. Discussion of extensive research performed in night vision. Four principles of night vision. Practical work with shadowgraph. Use of red goggles in dark adaptation, use of red light in dark adaptation and its effect on colors. Discussion of training aids. 2 hours. 10¢

Mechanical Training, 81mm Mortar: No .1601. Organization: weapon characteristics; description and functioning; ammunition; nomenclature; mounting and dismounting; assembly and disassembly; firing tables; fire commands; sight; sight setting and laying. 4 hours. 10¢

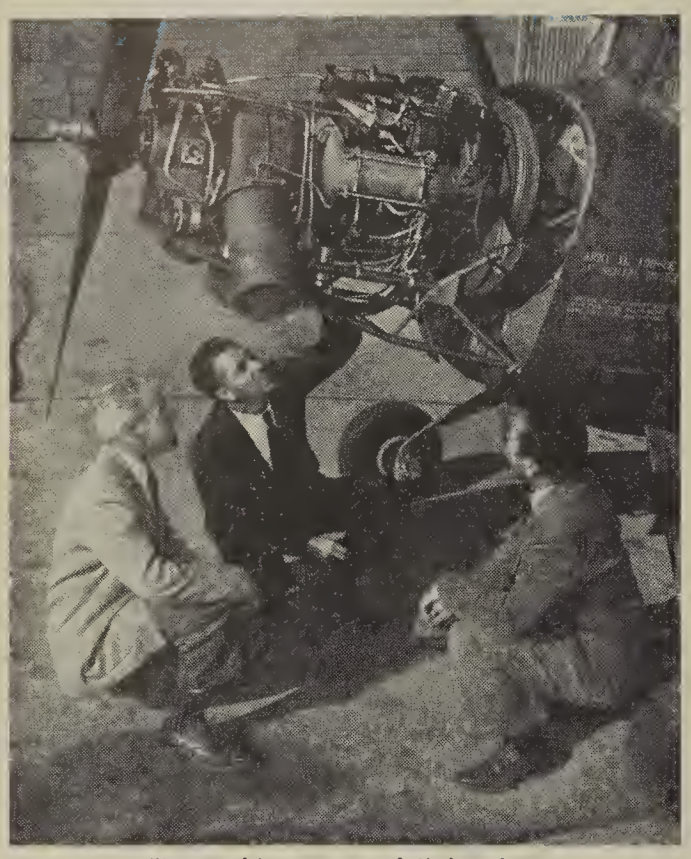
Table II—Qualification Firing Course "C" 57mm Rifle: No. 1759. Explanation of Table II. Course "C," Practical work in firing the course. 4 hours. 10¢

STAFF DEPARTMENT

Map Reading: No. 6680. Marginal information; conventional signs; military symbols, grid and thrust lines; geographic coordinates; scale; relief and topography used in map reading. 2 hours. 80¢

UNIVERSITY OF ILLINOIS

Irons in the Fire



First turbine-powered light plane

Turboprop "Bird Dog"

The light Army-used Cessna XL-19B, powered by the new Boeing 502-B gas turbine, has been under test for over two months at Cessna's Wichita plant. Minor modifications to the engine mounts and cowling were necessary in order to install the turbine, and additional internal air intake ducts and a new oil radiator support had to be added. If further tests indicate its full acceptance, it would provide the Army with a plane with a power plant 125 lbs. lighter; with cooling problems eliminated and with vibration almost nonexistent. The engine uses almost no oil and has eliminated the need for fuel mixture control, carburetor and the attendant carburetor heat control system. Another very practical advantage of the new engine is the fact that it will operate on diesel fuel, any grade of automotive fuel, high octane gas, or jet fuel.

Aeroplast

The Air Force-developed "spray on" plastic surgical dressing excites military medical officers. Originally developed for possible emergency use in the event of atomic attack, it appears now that it may be effective in treating many types of surgical wounds. The transparent plastic dressing is applied directly to the burned or injured areas of the body from an aerosol-type pressurized container and provides instant protection. Tests so far indicate that gauze bandages are not needed when the "aeroplast" is used. "Aeroplast" has many advantages over gauze dressings, including time-saving application, transparency to permit easy inspection of the wound, and ease in removing or changing the dressing, and it can be applied to parts of the body poorly adapted for gauze dressings.

Panoramic Photography

Though usually associated with motion pictures, panoramic photographs of the "still" variety are proving a useful intelligence medium in Korea. Used in conjunction with terrain maps and sometimes aerial photos, these panoramic photos have proved of great help in identifying terrain features. Artillery fire-direction centers, tank commanders and forward observers have all found target and terrain identification easier with panoramic photographs. They are useful too in briefing patrols and new officers, and by using "before and after" shots, better evaluation of firing results can be made. For best results a point of good observation anywhere from 500 to 1500 yards from the front lines can be selected. A Speed Graphic camera on a tripod, with a F/4.7, 127mm lens, is used. Pictures of an entire regimental front may be taken allowing about a 25% overlap on each picture. After printing and enlarging, the photos are then cut and pasted to form a complete mosaic of the area.



As a desk phone . . . *. . . as a wall phone.*

All-In-One Telephone

A combination wall-desk telephone, called the "all-in-one," has been designed by the Connecticut Telephone and Electric Corp. The phone is actually a universal local-battery telephone which can be converted to a manual common-battery phone without adding either electrical or mechanical parts. It can also be converted quickly to a common-battery dial phone merely by the addition of a dial and dial bracket. It can be used on either wall or desk without modification. Built to meet military specifications, the new phone can withstand unusual abuse and climatic conditions and features a new hookswitch consisting of two sensitive enclosed switches thoroughly sealed from dust and dirt. All parts of the phone may be removed or interchanged with no other tool than a screwdriver, enabling quick repair and maintenance.

Guided Missile Group

The 1st Guided Missle Group, formed in April 1950, has three battalions engaged in testing and developing missiles and in training AAA soldiers in missile operations and tactics. The 1st GM Battalion, parent of the Group, is at White Sands, N. M., and engaged in development work with civilian engineers and scientists. The 2d and 3d GM Battalions work with specific tactical missiles, including firing operations. There are three types of guided-missile specialists trained by the Group: (1) fire control crewmen who operate the ground guidance equipment and perform duties similar to a radar operator; (2) matériel crewmen who help assemble, test and maintain missiles; and (3) launching chiefs and specialists who perform various duties in launching areas.



Humidity Indicator

Cocoon Sleuth

A handy humidity indicator, capable of detecting a spoonful of water in an average-sized living room, has been developed by the Minneapolis-Honeywell Company and the Department of Defense. The unusually sensitive electronic device was designed to safeguard stored military equipment from rust and corrosion. A sensing element is placed inside the cocoon at the time of storage and an electron meter can then be plugged in through a connection to determine the humidity within the cocoon.

Tank Modification Plant

A tank modification plant will be built at Newark, Del., at a cost of $3,100,000. It will be operated by the Chrysler Corporation and will be a part of the Chrysler Delaware Tank plant. The Army anticipates that it will be in initial operation by 1 April 1953, and in full operation by 1 July 1953. The new plant will be used for making final installation of on-vehicle-equipment and any modifications which may be required on all tanks produced in the Delaware Tank plant. It will employ 400 persons.

P2V-6 Neptune

Lockheed Corp. has the P2V-6 Neptune under flight test. This new Navy plane is designed for mine-laying and anti-submarine warfare. It is powered by two turbo-compound engines built by Wright. Among new features is pressure fueling for fast-feeding fuel into the wing tanks to save time in combat; a companion feature provides rapid emptying of tanks in hazardous situations; stainless steel engine nacelles have high fire resistance.



Heavy crane rolls up ramp of new BARC

60-ton Amphibious Vehicle

The "BARC," a huge 60-ton, amphibious cargo vehicle which travels on 10-foot high tires, was unveiled at Fort Lawton, Wash. It is designed to perform tasks ashore and afloat far outranging other amphibious vehicles. The amphibious BARC can take heavy loads from shipside in deep water, across a beach and over rough terrain to an inland supply point for direct discharge, or for transfer to truck or rail. This largely eliminates difficult and inefficient re-handling of cargo at the waterline. The vehicle was developed by the Transportation Corps with consultant advice by Richard C. Kerr, technical consultant of the Arabian American Oil Company, and Roderick Stephens, of Sparkman and Stephens, Inc., both of New York City.

The BARC is 61 feet long, 27½ feet wide, and 16 feet high. One operator can handle it both on land and in the water. Its basic crew is three men.

Each of the four wheels is separately powered by an individual 165 horsepower industrial Diesel engine driving through a torque converter and torqmatic transmission. The transmission has three forward speeds and one reverse, with a land speed up to 15 miles per hour. Steering on land is by hydraulic control and power. The driver may steer by front wheels only, leaving the rear wheels locked in a straight position, or use front and rear wheel action simultaneously for sharp turns. He can also set the wheels for "crab" steering to either side. Afloat, it is propelled by twin screw propellers, each powered by two of the four engines. By reversing propellers, one forward and the other reverse, the BARC can "spin" in a relatively tight circle for quick maneuvering.

To facilitate the discharge of cargo, the BARC is equipped with an hydraulically operated bow ramp. In addition, there is a stern winch also driven through a power-take-off, which has a line-pull capacity of fifty thousand pounds.



Navy's Neptune

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★ BOOK REVIEWS ★

LINCOLN THE STATESMAN

LINCOLN THE PRESIDENT: MIDSTREAM. By J. G. Randall. Dodd, Mead & Co. 467 Pages; Illustrated; Index; $7.50.

During the Civil War, President Lincoln concentrated with equal intensity on the destruction of the enemy's armed forces and on the more difficult and subtle task of winning men's minds. This is made abundantly clear in the third volume of Mr. Randall's monumental and scholarly study of Lincoln's Presidency. In this volume the emphasis is on Lincoln, the statesman, rather than Lincoln, the commander-in-chief. The events of 1863 are stressed, but Mr. Randall's reflections on the interplay of biography and history, of the action and reaction of Lincoln's personality and character with the human and international environment are by no means confined to that year.

Copperheads and many members of Congress were venomous opponents of Lincoln's efforts in this country's first total mobilization. The war powers of the President were under constant scrutiny and debate. In consequence the President's difficulties with Capitol Hill were disturbing and depressing. "When in addition to all this," writes Mr. Randall, "it is remembered that the President got little comfort and much interference from his Cabinet, that his generals were often a trial to him, and that few of the state governors were genuinely enthusiastic for him, one can understand Lincoln's loneliness in his lofty office."

If to these tribulations had been added the unhappy marriage that many earlier biographers have pictured, Lincoln's chances of survival would have been small indeed. Mr. Randall's well documented chapter on the "lonely White House pair" puts an end to this canard. He is evidently justified in concluding that the Lincolns were "a loving and thoroughly devoted couple" and that Mary Todd Lincoln and their sons were a never-failing solace to the President. Lincoln's "gift of laughter," to which a most illuminating chapter is devoted, was also consoling in a time of trouble.

Another myth that gives way to careful analysis of historical evidence is the usual belief that Britain was hostile to the North during the Civil War. Mr. Randall offers proof that the British people and government were fundamentally friendly to Lincoln and to his cause, and Lincoln's policies, both foreign and domestic, decidedly influenced this conciliatory attitude.

Of military activities there is comparatively little in this volume, other than the campaign in eastern Tennessee in 1863. This led to Grant's assignment to the supreme command in the West. Evidence is lacking, according to Mr. Randall, to prove that Lincoln personally made this decision. "Lincoln did not at this time 'find' Grant, though he felt and expressed high regard for him and found his uncomplaining letters, and his lack of a personal ax to grind, refreshing in contrast to other military leaders."

Mr. Randall's life of Lincoln the President admirably fulfills William Faulkner's comment that it is the writer's "privilege to help man endure by lifting his heart, by reminding him of the courage and honor and hope and pride and compassion and pity and sacrifice which have been the glory of his past." These climactic years of Lincoln's life have all these qualities and Mr. Randall makes the most of them with simplicity and without exaggeration.—Brigadier General Donald Armstrong.

LINCOLN THE MAN

ABRAHAM LINCOLN. By Benjamin P. Thomas. Alfred A. Knopf, Inc. 548 Pages; Illustrated; Index; $5.45.

Abraham Lincoln was, by any standards, one of the most complex, many-sided men ever to achieve high political office in the United States or the world. This gaunt man was no simple son of the soil, no saint with a holy purpose to free the slaves, no brooding figure in a magnificent memorial in Washington. Abraham Lincoln was a living, breathing man—a man who had a deep vein of humor in him, a man who worried to the point of hypochondria, a man who had family troubles, a man who saw something about the United States that it has been given few men to see, a man who was determined that this country should be saved no matter what else was destroyed in the saving.

Lincoln had an enormous capacity for learning, and grew in wisdom and knowledge as he grew in years. He was a statesman in the broadest and finest sense of the word. But Lincoln was also a practical politician whose skill was unequaled in the White House until the election of Franklin Delano Roosevelt nearly seventy-five years later.

These are the things our young people seldom learn about Abraham Lincoln in their studies, but the student, young or old, who does not understand them does not understand Lincoln or his times.

Benjamin P. Thomas has been a Lincoln scholar all his adult life, and this book shows clearly that many years of patient digging for facts and more facts can, if the seeker for facts is capable of understanding them, result in a splendid work of literature.

Many have felt that everything has been said about Lincoln that could possibly be said. But Mr. Thomas has presented new material about Lincoln, both from the Robert Todd Lincoln collection and from the documents gathered for the preparation of the *Collected Works of Abraham Lincoln.*

The important thing Mr. Thomas has done, although his new material will undoubtedly please Lincoln experts, is to re-evaluate the man in terms of our time as well as his own. Lincoln was a legend before he was murdered, but he was not a universally loved or even universally respected man. It has been only in recent years that we have understood what Lincoln was trying to accomplish, the ultimate purpose of all his policies. In Mr. Thomas' words: "But only with the slow march of time would it be given to most of his countrymen to understand the supreme meaning of his life. Only with that national soul-searching which is born of trial and challenge would they begin to share his vision of man's vast future, and to know their proper part in shaping it.

"Because to him the American people were the leaders of an awakening of plain people the world over . . . Lincoln saw his countrymen as inheritors of a trust. To them it had been given to make democracy succeed, to cleanse it 'of the hypocrisies that deprive it of its just example in the world.' For in democracy, made genuine, he saw our 'last best hope' of frustrating any tyrant who seeks to regiment or debase or mislead any people, anywhere . . ."

This was the meaning behind the emancipation of the slaves, behind the great speeches, poetic in their feeling for humanity, austere in logic. This was the meaning behind nearly every act of Lincoln's later years. This was what his boyhood, his years of legal practice had taught him. This was the great belief that carried him through the terrible years of the war, that strengthened his resolve that the Union should not be destroyed.

Here, then, is Mr. Thomas' view of Abraham Lincoln, the whole man, and it is a superlatively good one—a balanced appreciation of Lincoln's private and public life, his stature as a statesman and as a military strategist. It is accurate, eminently readable, and soundly reasoned. The trivial and the apocryphal have been eliminated. Mr. Thomas has given us a biography that is likely to be the standard one-volume work on Lincoln for the rest of this century, and perhaps longer.—O. C. S.

THE LOYALTIES OF SOLDIERS

SWORD AND SWASTIKA: Generals and Nazis in the Third Reich. By Telford Taylor. Simon and Schuster. 445 Pages; Illustrated; Index; $5.00.

A historical study of the German officers' corps may well seem to be a dull and academic matter of little current interest. But actually, Brig. Gen. Telford Taylor, who was an Army intelligence officer in Europe during World War II and later the prosecution counsel at the Nuremberg war crimes trials, has created the stimulating basis for deep thought on two questions which are certainly current and which might well become vital in the not distant future.

What were the potentialities of the Ger-

man officers' corps which survived and prospered after the defeats of the Napoleonic wars and of World War I?

What are the political and moral responsibilities of military men?

The first question cannot be answered intelligently without an understanding of the history and traditions of the German officers' corps. The second is not as definitely settled in America as many military men have believed. General Taylor quotes General MacArthur as saying in one of his speeches: "I find in existence a new and heretofore unknown and dangerous concept that the members of our armed forces owe primary allegiance or loyalty to those who temporarily exercise the authority of the Executive Branch of Government rather than to the country and its Constitution which they are sworn to defend. No proposition could be more dangerous."

Apart from these two questions, this book has further value because of the far-reaching effect of the decisions of the German military leaders when, during pre-World War II days, they faced the problem of to whom they owed allegiance. As General Taylor says, "The alliance of the German military leaders with those of Nazi totalitarianism sealed the fate of Germany, cast the die for war, and turned the course of history." He adds that this alliance "was the direct cause of the desolation and devitalization of Europe and a major determinant of the international crisis we face today."

General Taylor focuses his attention on the period between the Versailles treaty —"In 1918, the officers' corps was left with nothing it thought worthy of loyalty except itself"—and the invasion of Poland, but he covers the whole history of the corps from the days when it was the exclusive province of royalty and the nobility. As he says: ". . . several Prussian noble families were becoming army stud-farms bearing names all too familiar today. Even before the turn of the century there had been fourteen generals von Kleist and ten generals von der Goltz."

He sums up the corps' history in this paragraph: "Originally recruited from the eighteenth-century Junker nobility of Prussia, the corps took shape and rose to fame under Frederick the Great. Discredited by abysmal defeat at the hands of Napoleon, the corps was rehabilitated early in the nineteenth century by a remarkable group of leaders known to history as the 'Reformers' (Scharnhorst, Gneisenau, Clausewitz and others), and won back its prestige with the ultimate downfall of Napoleon, in which the Prussian armies under Bluecher played a vital part. After another period of stagnation, the corps rose to the zenith of its glory during the second half of the nineteenth century under the leadership of the renowned von Moltke and von Schlieffen. Victorious in three wars against Denmark, Austria and France during less than a decade, the military leaders shared with Bismarck the popular acclaim for bringing the German Empire

Off-Duty Reading

Who Put the Benzedrine in Herodotus's Ovaltine?

THE writing of military history has come to a point where there is a basic conflict between the people who would have us write military (or any other) history for its own sake, and the "do it today" school of thought.

The exponents of definitive history believe that the events of the past—if accurately researched, clearly written and correctly interpreted—will be absorbed into the body of military doctrine by a sort of osmosis. This, they believe, is the proper function of military history. The historian, they hold, must not have his research cut short, his judgment clouded by a sense of urgency, by someone peering over his shoulder and saying: "Quick, what went wrong with this action? How do we have to change our doctrine to prevent the same mistake in another war?"

Considering that only in the last few years have we gotten the Civil War correctly assessed (and there are still many who will take violent issue with *that* statement), there can surely be no quarrel with the calm, dispassionate view of military history.

But there is. The quarrel is that we no longer have 25 or 50 years between wars (assuming that we used this time to learn). We are lucky now if we have five years between wars, and we need to have the lessons written for us almost before the guns have cooled. And so the pressure goes on for monographs and studies of special actions, special phases of war for immediate delivery to the planners and the people charged with training.

Some historians say that this is not history. Some say that it is history, though not definitive history. Both agree that there is a need for it, but nobody agrees on who should do it—whether it should be a historical function, or a function of Operations Research or some similar agency.

AND so we have one group of historians writing the many-volumed history of World War II which, we suspect, nobody will have time to read from end to end and for which no master index will be available for some years. We have another group collecting current material from Korea for the preparation of studies on special aspects of the war. (Some of this material has recently appeared in these pages.) Other men are in the field, collecting information, conducting interviews. Command reports flow in from Korea, some of them informative, many of them suspect.

Military history, in other words, is a complex, far-flung operation, but still the stepchild of the United States Army. Some commanders are conscious of the need for military history, but many mistrust it and its motives, brush off historians attached to their commands or try to use them as PIOs and writers of citations. Some historians, we must admit, deserve this treatment, but many are competent men who deserve a commander's time and confidence.

But the Office of the Chief of Military History has not enough money or enough people to be all things to all men. The history of World War II is going forward and, although the volumes are uneven in quality of writing, they constitute so far a magnificent achievement—an achievement that will be of enduring value, perhaps of more value in 25 years than they are now.

We believe good material will come out of Korea, but it has not appeared yet, largely because the program was slow to start and because no one seems to have been quite sure what the program ought to be.

In the meantime, day by day, G3 or G2 wants information on this problem or that problem—a special study on a special aspect of World War II that is applicable to Korea or to some problem that may come up in the future. And there are not enough people to dig the information out unless something else is put aside and delayed.

We believe that all of these things are in the field of interest of military history. We believe it is time to recognize the fact that military history—in *all* of its phases—is vital to the life of the United States Army. We are not going to throw away all of our past experience no matter how atomic another war may become. We believe the historical program ought to be put on a basis where it can deliver information to meet current needs without interrupting its long-range program of narrative history. The historical program has given us magnificent work (the volume reviewed elsewhere in this issue is a splendid example), but we cannot help but believe that it is not yet fully accepted by responsible senior officers, and until it is, we are in danger of losing the bright, clear light that the past can shine upon the present.—O. C. S.

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into existence and raising it to the status of a major world power. The dominating stature of the officers' corps in Germany after the Franco-Prussian War carried it through the ensuing seventy years and enabled it to survive defeat in the First World War. Even the utter disaster of 1945 has not entirely destroyed the prestige of the corps, and it would be reckless indeed to assume lightly that it has no future."

Never has Hitler's "malignant but phenomenal political genius" been established with more clarity than in this book, and the account of the development of his dominance over Germany's military leaders is well written and well documented. It may be that the author has treated the officers' corps too much as though it were a legislature or a jury organized to consider political and moral questions and take votes on them. Indeed, he seems to use "officers' corps," "the generals," and "the commanding generals" interchangeably. And in discussing the period of the Polish and western campaigns and the initial attack on Russia, he says: "This critical moment in German history found men at the top of the rank list who were to be sure, ambitious, energetic and skilled in military science, but whose other faculties were either still-born or atrophied from disuse." With their country involved in war, may these leaders not have had "other faculties" which they were still capable of using but which they felt honor-bound not to use?

The whole question of the political and moral responsibilities of military men is as important to American soldiers, sailors, and airmen as it was to the German generals. The American officer takes his oath to "support and defend the Constitution of the United States against all enemies foreign or domestic," but his commission says that he is to observe and follow such orders and directions as he shall receive from the President or future President or officers "set over him."

In commenting on the previously quoted statement of General MacArthur, General Taylor says that it "raised by clear implication the idea that an officer's duty of *obedience* to 'those who temporarily exercise the authority of the Executive Branch' (by which he can only mean the President, who is the Constitutional Commander-in-Chief, just as were the German Presidents in Seeckt's time) is qualified by an overriding obligation to defend the Constitution."

In a final chapter on "The Responsibility of the Officers' Corps" Taylor discusses this and related questions extensively in the case of the Germans, and more briefly and less explicitly as a general problem. He points out that the adjective "military" has long since lost its purity, and that it is quite impossible for generals to analyze military problems without the analysis carrying a direct impact on political and diplomatic issues. He believes that there is a "sound public attitude that military leaders should enter these controversies as expert technical advisers, and not as advocates with a political stake in the decision."

General Taylor does not sit in judgment on these problems, but he quotes two opinions which might serve as guides for soldiers who find themselves in the dilemma of the German officers under the Nazi rule. The sources are diverse and the author does not put the quotations together in his text. The first is, peculiarly enough, from a book review by R. H. S. Crossman: "A democracy can only be preserved by the soldier's studied refusal to play politics; under a dictatorship, freedom can only be restored if the soldier leads the revolt." The other is from a comment on the responsibility of the leaders of the Wehrmacht made by the German General Ludwig back in 1938: "Their duty of soldierly obedience finds its limit when their knowledge, conscience and responsibility forbid the execution of an order."

The American tradition, well established but sometimes violated, that an officer should resign and then be free to act in accordance with the dictates of his conscience still seems to have much in its favor.—Maj. Gen. H. W. Blakeley, Rtd.

THREE CHARACTERISTIC BATTLES

THREE BATTLES: ARNAVILLE, ALTUZZO, AND SCHMIDT (U.S. Army in World War II). By Charles B. MacDonald and Sidney T. Mathews. Office of the Chief of Military History, Department of the Army. 443 Pages; Illustrated; Index; $4.00.

It is no overstatement to say that this volume of the multivolume *U. S. Army in World War II* is the most important of all for officers of company grade and noncoms to read and understand. There are lessons in it, too, for field grade and general officers who must, after all, train and lead into battle today's and tomorrow's Army.

The three battles which the authors have re-created here were characteristic of many, many battalion and regimental actions in Italy, and in France and Germany. The first of these was the crossing of the Moselle at Arnaville, just south of Metz, between 8 and 15 September 1944. It came at the end of the long Third Army sweep across France to the gates of Metz, a sweep we now know would have had to end about where it did whether or not gasoline had been available. The Germans were not totally without reserves, and resistance to Third Army patrols was stiffening appreciably in the first days of September. But the Arnaville crossing was part of a plan which ordered a crossing of the Moselle, seizure of crossings on the Sarre, some thirty miles beyond the Moselle and, upon army order, a sweep to Mainz on the Rhine. Actually, the 7th Armored Division was unable, without infantry support, even to cross the Moselle, and it was many bitter weeks before Metz fell to the 5th Infantry Division and the 7th Armored.

The first of these studies, then, is a report by Charles B. MacDonald on the crossing of the Moselle at Dornot and Arnaville by the 10th and 11th Infantry

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The second study, "Break-through at Monte Altuzzo," by Sidney T. Mathews, covers an action that was similar to the Arnaville crossing in one way. The troops going into the action initially were overconfident, poorly prepared psychologically for the hammering they had to take. Planning and coordination below army and corps level were sketchy, which meant an interval of two days or more before commanders could take hold of the situation and bring it under control.

The Altuzzo battle was a fight for the peak that controlled Il Giogo Pass, through which ran the secondary highway from the Arno Valley into the Po Valley. The main Fifth Army effort was directed at Il Giogo Pass because the Germans held Futa Pass and Highway 65 so strongly. At Il Giogo the Gothic Line was weaker.

Yet the fight for Monte Altuzzo, the main effort of a powerful army, was carried by one regiment, the 338th of the 85th Division. This report is the story of that action, a complex and confused operation that was finally won as much by the weight of American artillery as by any other single factor.

"Objective: Schmidt," by Charles B. MacDonald, the third action of this volume, is a report on the 28th Infantry Division's November, 1944, attack against Schmidt, Germany, a town on high ground that overlooked (though at a considerable distance) the massive Schwammenauel Dam, one of the series of Roer River dams which the Germans could blow at any time to release a flood that would cut off any Roer crossing we made in the Aachen area. The division's attack, the historian reports, was a bloody and costly failure through no fault of its own.

The 28th Division attack was supposed to do too many things with too few troops. It was to gain maneuver room and additional supply routes for the impending VII Corps attack to the north, protect VII Corps right flank, seize ground for a line of departure for a later attack against the Roer dams, and attract enemy reserves away from the VII Corps attack.

As MacDonald points out, the division failed of its first three missions, or succeeded only partly. It registered a thundering success in its fourth mission, however, because VII Corps' attack did not come off on time. The weather was too bad for proper air support, and so there stood the 28th Division, making the only attack on either the First or Ninth Army fronts, an attack which received *all* the attention of the enemy reserves.

"Objective: Schmidt" is therefore primarily a report on the 112th Infantry's attack to seize Schmidt, the main objective of the division attack. It is a report of a calculated risk that failed.

These three actions will all find their places in the volumes of *U.S. Army in World War II* that cover the big picture. But MacDonald and Mathews have nevertheless been careful to see that none of the action they write about appears in a vacuum. They show clearly the big picture behind the action they describe, the supporting units and what they did, the actions of the units on the flanks, and the enemy situation taken from careful study of German documents.

We have here, then, the war in miniature, for campaigns are made up of many actions like these, any one of which may prove to be decisive out of all proportion to the number of men engaged—and that is the importance of this book. For in these pages are all of the elements that may win or lose, not just a battle, but a war. Each of these studies shows clearly how Infantry, Artillery, Armor, Engineers, Air Force, and other arms and services work together—or fail to work together. Each has been thoroughly researched and each is logically organized and sharply written. The actions move, and the reader can follow battalions, companies, squads, even individuals without the doubling back and twisting that is too often characteristic of such action reports.

Here the student can see, if he chooses to see, how important the fundamentals of military training are, how lack of communication between a company commander and a platoon leader can hold up an army, how vital it is for even the smallest unit to report its position accurately. Here, as they happened, are the disastrous results of superficial planning and inadequate reconnaissance. Here are the fruits of competent leadership, and the tragedy of the officer or NCO who cannot lead in battle.

It is important that we record the overall history of a great war, but it is equally important to publish studies of this kind. Their value to the man who must lead in war, be he regimental commander or squad leader, is beyond measure. Mr. MacDonald and Dr. Mathews deserve great credit for a work that should become a military classic.—O. C. S.

MILITARY EDITOR

WILLIAM CONANT CHURCH & THE ARMY AND NAVY JOURNAL. By Donald Nevius Bigelow. Columbia University Press, 1952. 266 Pages; Index; $3.75.

William Conant Church left the Union Army in 1863, to found the *Army and Navy Journal.* His weekly featured accounts of military and naval actions by commanders and participants; the rest of the contents was supplied by Church himself—editorials, book reviews, necrologies, and the like. He had a low opinion of his sometimes intemperate "lay contemporaries," whose subscribers could read accurate dispatches by correspondents before official reports reached Washington. In fifteen years his paper became the recognized champion of the services, and Church was on intimate terms with practically all the important brass hats. By the turn of the century his *Journal's* influence began to wane with the appearance of the branch journals, edited by active officers with modern ideas. Church died in 1917, and the paper soon went out of his family's control.

This book is not a history of the *Army and Navy Journal,* nor a definitive biography of its founder. It tells the story of why Church founded his paper and the policies he supported in its pages during the fifty-four years he was its editor.—N. J. A.

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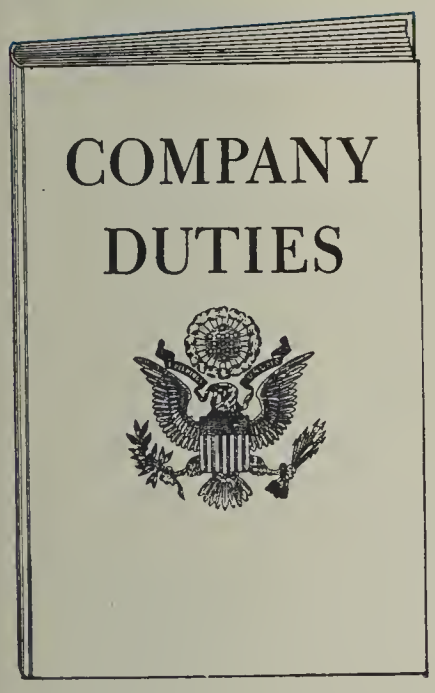
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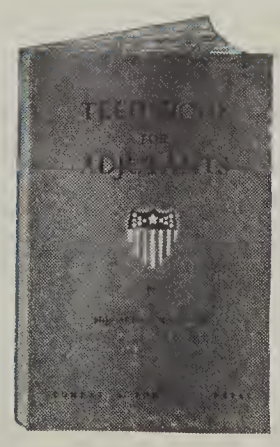
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THE Czechoslovakian Communist government recently had published a book of 81 poems described as being written by Czech soldiers. The verses give an insight into the indoctrination of the soldiers of a Moscow satellite state. The recurring themes are adulation of Stalin, and determination to defen home, hearth and countryside from the brutal soldiers o Wall Street.

Here are three samples:

Rifle Practice

By Vlastimil Muller

* * *

Shoot
At those
Not able to close
The belts
Over their dollar-swollen bellies.

Against them
We need an Army fighting fit.

* * *

Lullaby

By Alexej Kusak

* * *

Your father has a loaded gun
He stalks in the forest with it
Where there is someone with cruel eyes
Where there is someone with cruel eyes
The messenger of death.

* * *

Everything for Peace

By Ales Rejchrt

* * *

My signature—a shell; my work—a gu
Spoiling the sleep of those in Wall Stree

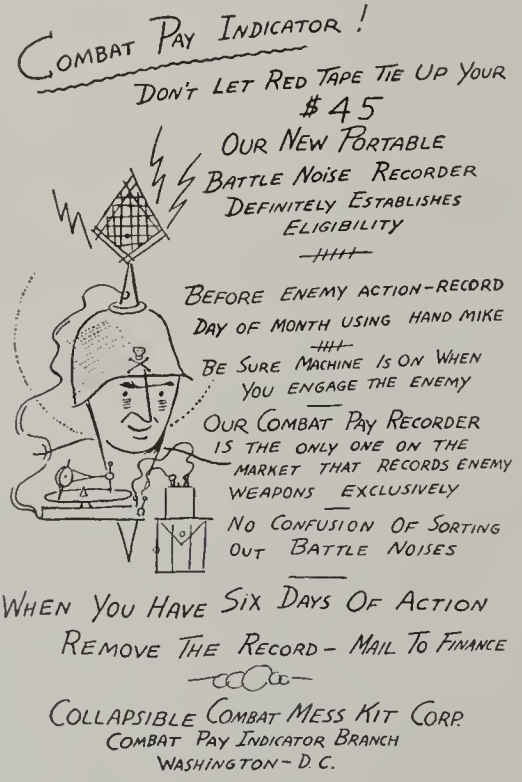
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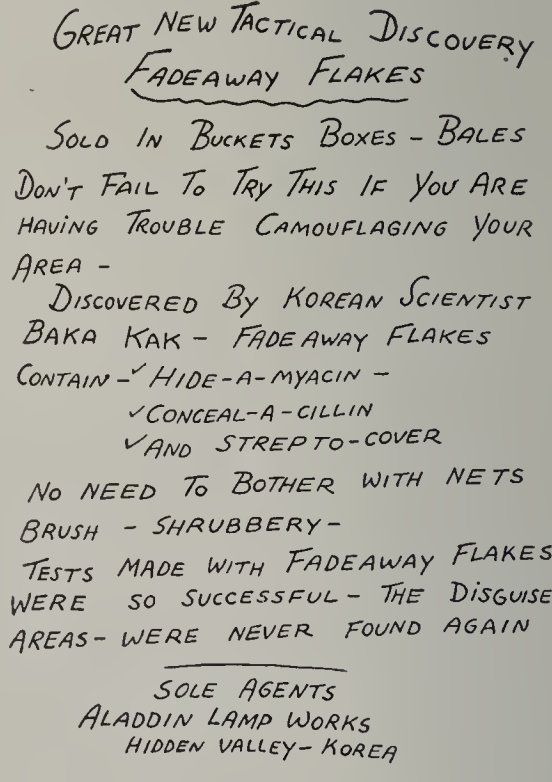
... That's Stalin's order.
Unshakable truth we gather from his lip
To all who waver I want to say:
Where Stalin is there too is victory.

IN the introduction to the book General Cenek´ Hruska, Deputy Minister of National Defense, wrote: "Naturally, our soldier differs from the soldier in a bourgeois army. . . ."

To which the bourgeois U. S. Soldier can utter a fervent, "Natch'."

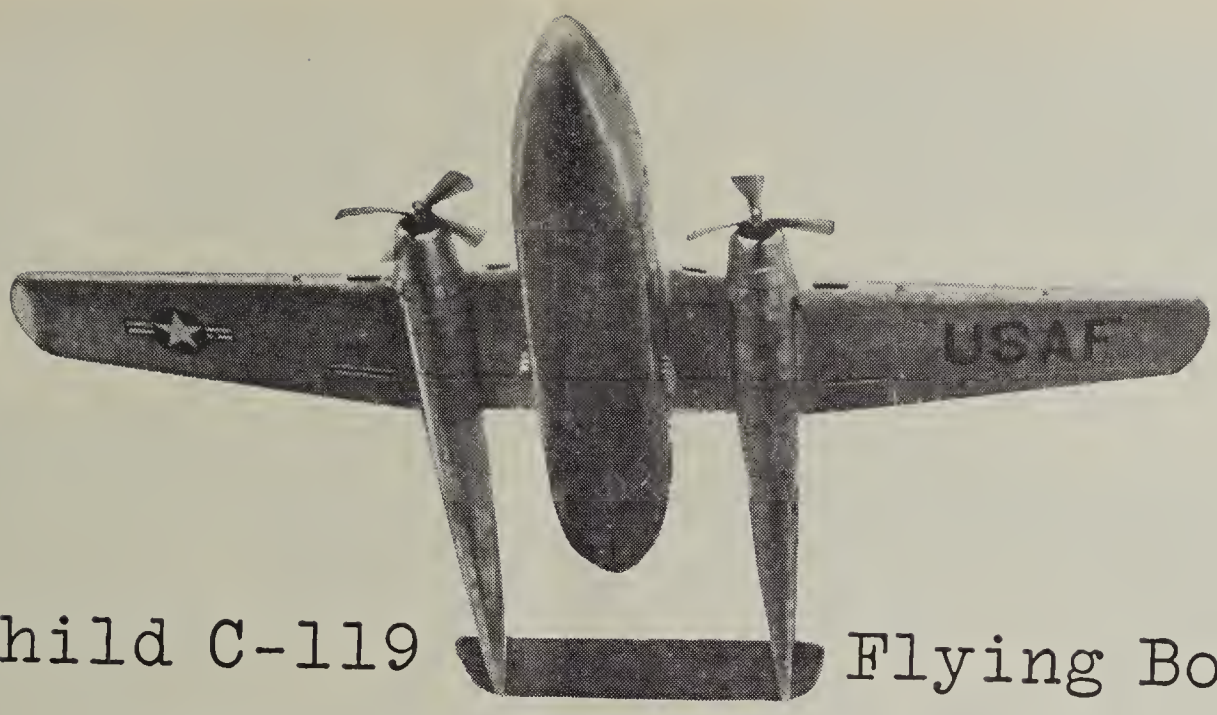
As an expression of that difference we reproduce here tw samples from a series of impudently funny ads that have bee appearing on the back cover of *The Jolly Roger*, a mime graphed newspaper published in Korea by and for the 32 Infantry regiment.



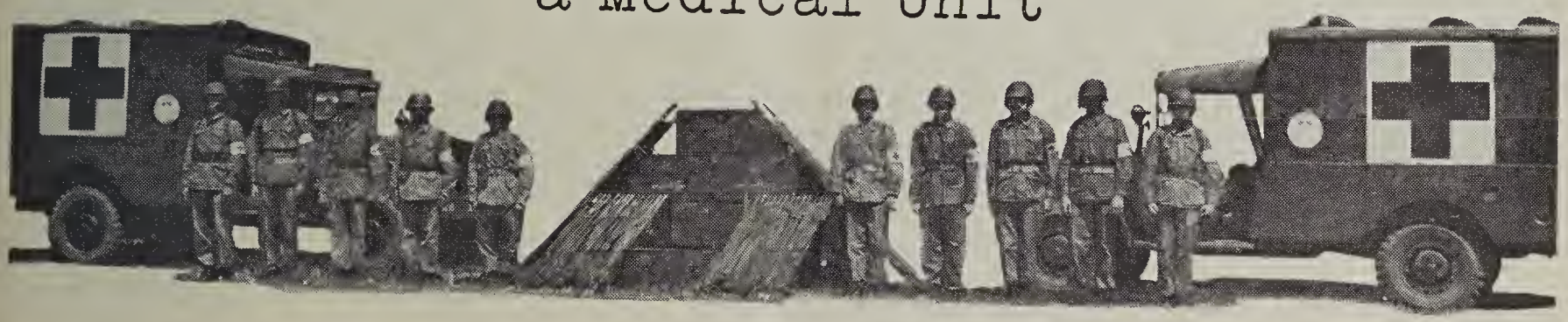


COMMUNISTS, imprisoned in their own dogma, cannot conceive that any American would dare poke fun at such a gre American business institution as advertising and in satire that plays with his own pay and allowances to boot.

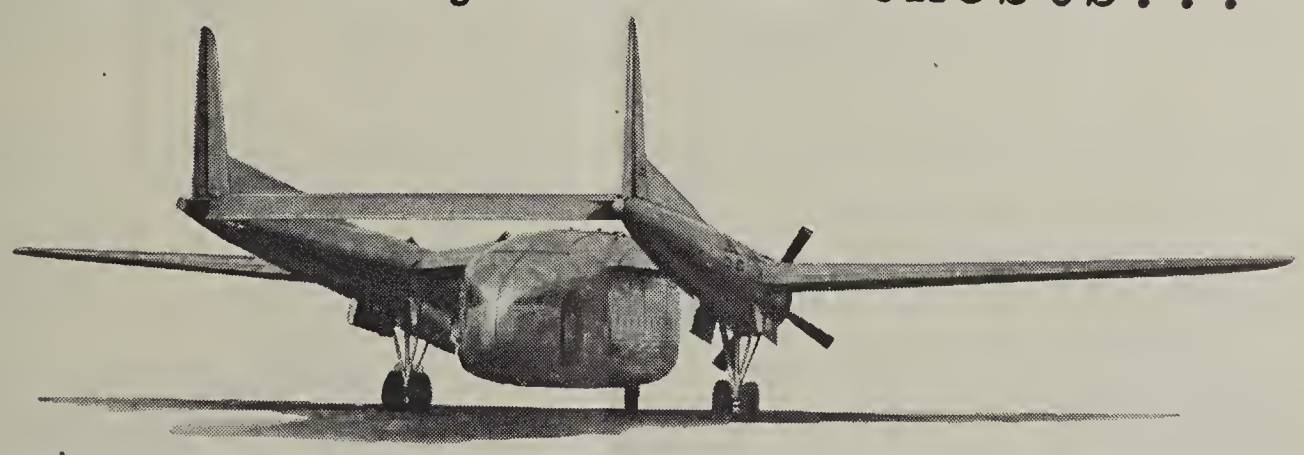
WHICH mind will last longer in battle? The free, flexible imaginative mind that can invent the "Collapsible Combat Me Kit Corp." or the frustrated, bitter, parrot-like chanting of the line that "Where Stalin is there too is victory."?



A Fairchild C-119 Flying Boxcar
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MINUTES INSTEAD OF HOURS—In just 28 minutes New York Airways' big Sikorsky S-55s can speed loads of air-mail between 3 major airports in the New York City area. Motor trucks took hours. Eventually these helicopters will carry passengers and freight, as well as mail, to 40-odd cities in nearby New York, Connecticut and New Jersey.

AROUND THE WORLD WITH THE FLYING JACK-OF-ALL-TRADES



HIT AND RUN—U. S. Marine ingenuity and cooperation solved the problem of how to launch a rocket attack on enemy strong points, then shift positions before rocket smoke trails and dust could be used by the enemy as a guide for counter-battery fire. Here a Sikorsky Marine helicopter positions the rocket launcher and ammunition a short distance behind the front lines.



SAVING TIME AND EXPENSE—More efficient use of time is always an objective in modern business. To provide speedy, flexible transportation, the Rockwell Manufacturing Company of Pittsburgh, Pa., has adapted a Sikorsky S-55 to its extensive operations. Now engineers and operating executives go by helicopter from plant to plant. The company says overhead savings will be substantial.



LIFTED TO SAFETY—Hovering over simulated destruction, a Sikorsky helicopter shows its versatility at the Federal Civil Defense Staff College by plucking an "injured man" from the ruins of a "bombed" 5-story building. Civil Defense officials say "There is no limit to the work these helicopters can do . . . in time of war . . . in any emergency."

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U. S. ARMY COMBAT FORCES JOURNAL

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UNITED STATES ARMY

COMBAT FORCES Journal

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Vol. 3, No. 7 — **February, 1953**

COVER: Night fire in Korea by a 155mm howitzer. This photograph was one selected by the Department of Defense as best typifying Army, Navy and Air Force activities in 1952. *(Department of Defense photo by a Signal Corps combat cameraman.)*

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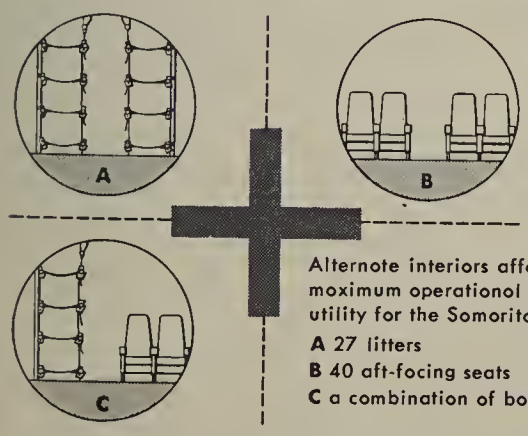
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★ To the Editors . . . ★

Reader's Contribution

A few months ago, The JOURNAL *received a telegram from an "Ex Infantryman"—who also signed his name—suggesting an extension of a technical process described in the then current issue. We sent the telegram to the office of the technical branch of the Army involved in the process and asked it to tell us whether the idea had merit or was the dream of a crackpot. Time went by and only recently we learned that the idea had merit, that the Army had been in touch with "Ex Infantryman" to get more information, and that the whole subject was now under wraps. Then we got a letter from the "Ex Infantryman," parts of which follow:*

To the Editors:

I have received notice that my suggestion has been placed in research and development and is now classified. Consequently I have stowed away in my safety deposit box all notes and papers on the matter.

Your promptness in rushing the idea to the proper channel helps prove again that "It's not where an idea comes from but the man with enough perception to recognize its value who creates progress."

If COMBAT FORCES JOURNAL serves to generate even a couple of useful ideas a year that may save many casualties or help stop the enemy, I would say the efforts of everyone concerned with the publication were very much worthwhile.

After all, where else but in the COMBAT FORCES JOURNAL can an ordinary GI or civilian find a receptive forum for ideas that reach the attention of the top brass and get a helpful shove in the right direction?

If any publicity should ever be given to my little idea, just list me as

G. I. JONES
Ex U.S. Infantry

Spark and Crackle

To the Editors:

This headquarters would like permission to make use of all or part of General Bullene's splendid article on the tactical uses of napalm in your November issue.

We want to use the information as a training aid during demonstrations in the field for the instruction of French, British, Belgian, Dutch and other organizations of Allied Land Forces, Central Europe.

May I also tell you at this time that COMBAT FORCES certainly has a lot of spark and crackle to it and we all look forward to receiving it.

LT. COL. ALEX SMITH
Public Information Officer
Allied Land Forces Central Europe
APO 11, c/o PM
New York, N. Y.

● The editors granted this request as we do most such requests for official reproduction of articles in the magazine. Sometimes we can't do it though—for example if the article was borrowed by us from some other magazine. What we would really like to see is such wide distribution of COMBAT FORCES JOURNAL that reproduction of its articles would be unnecessary.

Situation No. 2

To the Editors:

I read with great interest General Randle's fine article, "It's Situation No. 2." As a company officer with wide experience in training tactical units, he struck a "pet peeve" that I have nursed for a long time.

Look at a typical company-size tactical outfit in a unit training phase. It is ready to take to the field for a day of small unit tactics. Where is the company commander? Sitting on a court-martial board. Where is the exec? Investigating a LOD case. Where is the platoon leader, first platoon? On TDY to Regiment. Where is the platoon leader, second platoon? He is defense counsel at the same court-martial. Platoon leader, third platoon? Supervising the entire company in small unit tactics.

This is standing situation 365. I have no solution. Do you?

CAPT. IVERY D. STAUFFER
Armor
Reserve Officers Training Corps
Leavenworth High School
Leavenworth, Kan.

To the Editors:

"It's Situation No. 2" in your December issue is one of the finest articles I've ever read.

As a rifle platoon leader in Europe for the last year I've seen many situations similar to those described by General Randle. As a company training officer I've fought for more squad tactics only to find the schedule calling for more C-B-R defense, gas mask drill, and so on. Almost every time we end up with personal hygiene on the schedule. And yet three-fourths of our men don't even know fire and maneuver.

I could go on for days but will close and say again—a damn fine article. Too bad the General's retired!

LT. WORKER
APO 39, c/o PM
New York, N. Y.

Korea—Third Phase

To the Editors:

I have been a subscriber for sixteen years continuously and I cannot estimate the great value that the informative articles in the JOURNAL have been to me. But occasionally I notice an article which is composed largely of catchwords, sweet phrases, and a paucity of ideas, information or logic and which does not belong in COMBAT FORCES JOURNAL. "Korea—Third Phase" in the December issue is such an article, in my opinion.

The following are excerpts from the article with my comments in parentheses:

"It will be quite a while, to be sure, before the ROK Army is strong enough to take over the lines." (Yes, quite and to be sure. Communist China and Russia have armies.)

"Let the ROK government tell how, though wracked by war, it has the freedom to enact laws and follow programs that the United States does not necessarily approve." (Like being annexed by Soviet Russia. Infiltration, assassination, intimidation, bribery and economic pressure have been commonly used by the Communists to weaken or subjugate small neighbor states.)

"So on our side we have truth and righteousness. If we but lift up our eyes . . ." (sweeter than all the roses. Covered all over from head to foot, covered all over with—sweet violets!)

As propaganda for increasing ROK participation—a good idea—in the "police action," "Korea—Third Phase" is a dud on the intelligent minds of JOURNAL readers. It serves no useful purpose.

Please give us more articles like "People's War" and "Crisis in Manpower" in

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the same issue. They contain facts we need to know.

LT. OTTO B. ANKERSHEIL
USAR
Marston, Mo.

● We showed Lieutenant Ankersheil's letter to the author of "Korea—Third Phase," who replied in these words:

"Every man to his own opinion and certainly it would be quite an article that would merit the applause of every reader of the COMBAT FORCES JOURNAL—especially an article on Korea and America's role in the Far East.

"Lieutenant Ankersheil's sarcastic comment on my statement of the obvious fact that it will be a long time before the ROK Army can take over in Korea would be merited if it wasn't that in the past months so much has been said and written about the 'new' ROK Army that many persons have optimistically concluded that we could get out of Korea as soon as we had trained a few more South Korean divisions.

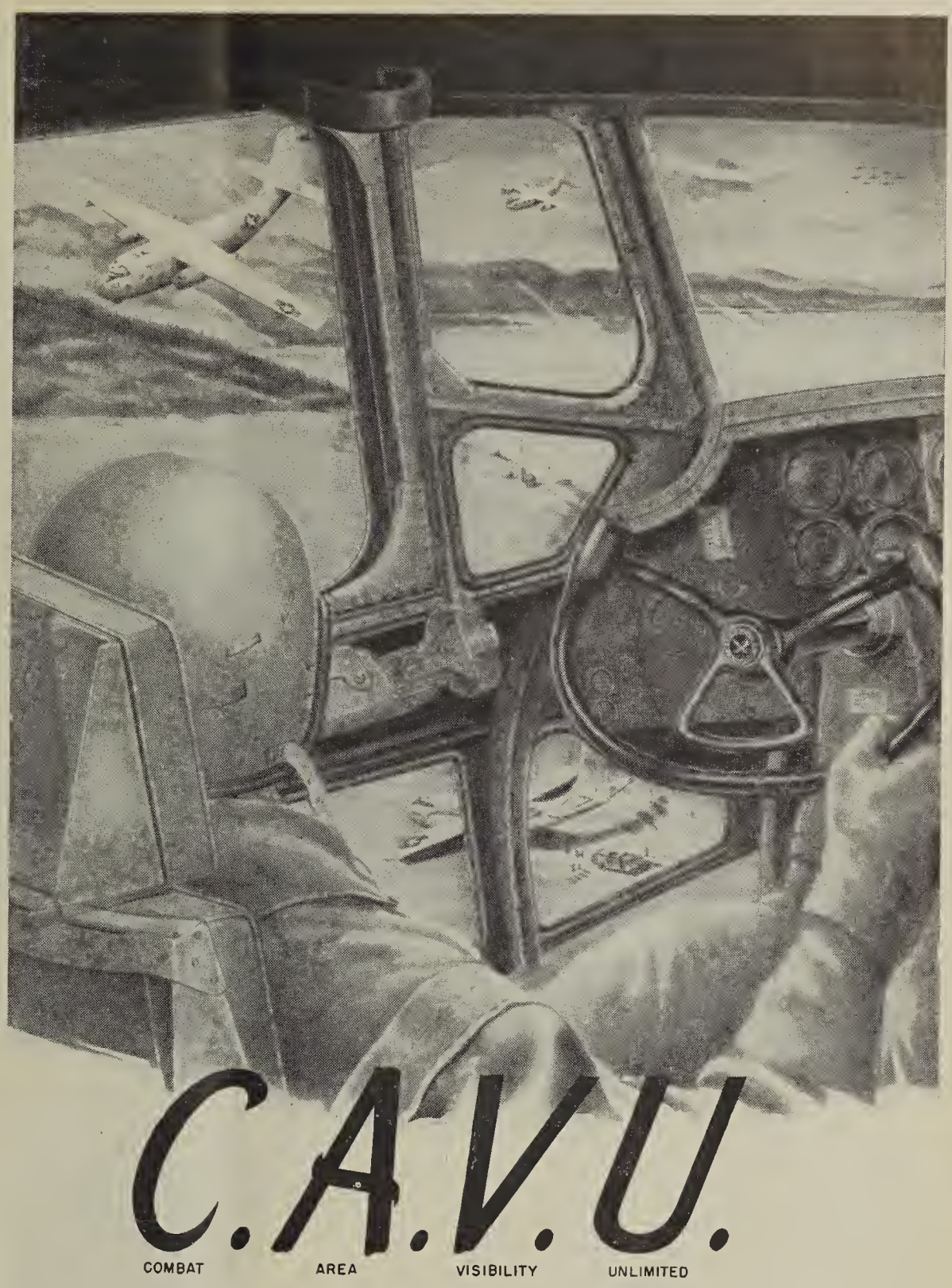
"I don't follow the Lieutenant's second comment. I thought what I wrote was quite clear: that we should encourage the South Korean government to tell the rest of Asia the truth about its relationship to the U.S. It is well known—at least I thought it was well known—that the present government of South Korea has done some things that our government didn't approve and yet we didn't do what the Communists would do in a similar situation and crack down on the South Korean government. We don't treat the ROK government as a satellite. I must confess I don't understand Lieutenant Ankersheil's comment in the context of what I wrote.

"I thought and I still think that we Americans are so bogged down and frustrated over Korea that we are unable to see the opportunity it gives us to redeem our name in Asia. Perhaps Lieutenant Ankersheil doesn't think 'truth and righteousness' are very strong weapons. I think they are very strong, much stronger than Communist 'intimidation, bribery and assassination,' if properly exploited. We went into Korea to stop aggression and we did turn it back. But military power can't destroy the forces of the aggressor without greatly enlarging the war and probably bringing on another World War. As I see it, the only way out of the stalemate—and the frustration—is to use other weapons: propaganda and psychological warfare. I believe that the combination of military power and propaganda and persuasion that is based on truth and righteousness is an unbeatable combination. My argument is that there should be an increase in the strength of our psychological warfare effort in Asia."

Reaction

To the Editors:

Being a good capital D Democrat, the cover of the January issue made me wonder if you fellows had gone political on



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Sgt. 1st Class Einar H. Ingman U. S. Army

Medal of Honor



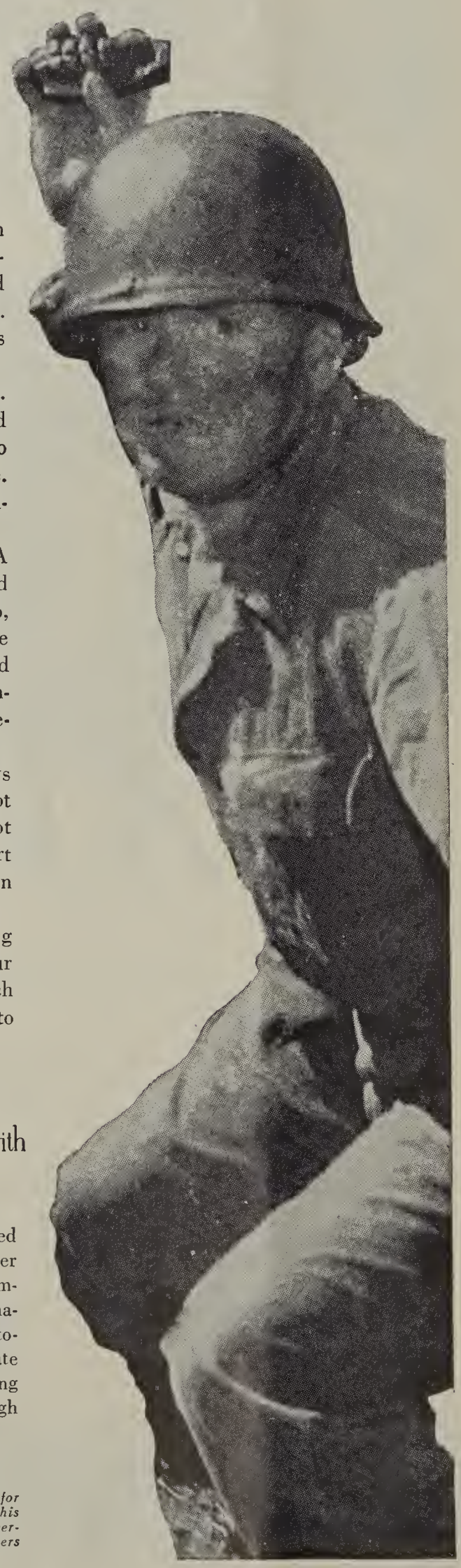
THE REDS in ambush on the ridge had lain concealed, withholding their fire. Now they opened up. The two squads were trapped. Their leaders were wounded; others were dropping.

Sergeant Ingman took command. He reorganized the survivors, assigned fields of fire, encouraged the men to fight. A red machine gun opened fire. The sergeant charged it alone, neutralizing it with a grenade.

Then he tackled another gun. A grenade and a burst of fire knocked him down, badly wounded. He got up, reached the gun, and dispatched the entire crew. When his squad reached him, they found Sergeant Ingman unconscious—but 100 of the enemy fleeing in panic.

"Bucking the Communists," says Sergeant Ingman, "takes an awful lot of staying power. The G.I.'s have got it. You have, too, when you invest part of your hard-earned pay *regularly* in Bonds."

Bonds are first of all a cash saving for you. But they're also back of our country's *production power*. Which couples up with G.I. *fire power* to keep the peace for all of us.



Peace is for the strong!
For peace and prosperity save with U.S. Defense Bonds!

Now E Bonds pay 3%! Now, improved Series E Bonds start paying interest after 6 months. And average 3% interest, compounded semi-annually when held to maturity! Also, all *maturing* E Bonds automatically *go on* earning—at the new rate —for 10 *more* years. Today, start investing in U. S. Series E Defense Bonds through the Payroll Savings Plan at work.

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and against me. But after reading the lead piece I guess you're up to your old tricks of being right on the ball in giving us outlanders the pitch on what needs to be done and what's coming.

JACQUES STONEPHIZ

Augusta, Me.

Combat Badge

To the Editors:

I happened to glance through your August 1952 issue and found the article about the Combat Infantryman Badge.

Anytime the Badge is issued or worn by a driver or cook or clerk it is being disgraced.

I will admit that once in a great while those men do have to fill in as combat soldiers. But only once in a great while.

They have, especially the cooks, plenty of chow, bunks to sleep in and squad tents while they are in the rear.

That is except for the time or times—which seldom happen—that they live in a hole in the ground. But the line soldier lives in a hole 99 percent of the time, gets C rations and not plenty of them, and he surely does not have a bunk.

Also even when the cooks and clerks are in enemy range they don't have to worry too much about Joe Chink slipping up on them while they are on a listening outpost.

And if the Chinese do slip up that far they have a bunker they can fight from. The men on the listening outpost have nothing but a hole and lucky to have that.

I have yet to see a clerk, cook or driver go on a raid or patrol of any sort.

I have yet to see those men fight hand to hand with a knife.

When those men live in a hole the same as we do for at least six months then I would gladly see them get the CIB.

I consider the CIB next to the CMH.

CPL. GORDON L. SCHEOPP
Co F, 9th Inf Regt
APO 248, c/o PM
San Francisco, Cal.

Unification

To the Editors:

With reference to Colonel Wiener's article in your October issue I would like to see a real unification of the Armed Forces by:

(1) By having one uniform for all.

(2) By creating a Department of Service Forces to handle all personnel, legal, medical, logistical matters for the three combat forces.

(3) Transfer of the Marine Corps to the Army as amphibious or marine divisions.

(4) Transfer naval and marine air units to the Air Force.

This to me would be real unification. It would save Uncle Sugar a few bucks each year too.

SFC RAYMOND R. BOWLES
APO 317, c/o PM
San Francisco, Calif.

MORE POWER TO U.S. !



Republic is adding a new deadly vehicle of Defense to Democracy's arsenal. It is the swept-wing F-84F ***THUNDERSTREAK*** *. . . latest, fastest flying member of a rugged family which has long served the U. S. Air Forces' needs in the fighter and fighter-bomber field. ➢ ➢ ➢ Now coming off our assembly lines, the* ***THUNDERSTREAK*** *flies faster, higher and farther than its combat-proven predecessors . . . the F-84 Thunderjet and the F-47 Thunderbolt. It carries more armament and performs with greater mobility the many tasks our Air Forces and the NATO Air Forces require in a fighter aircraft. ➢ ➢ ➢ The more than 20,000 Republic designed and built planes, predominantly fighters, which preceded the versatile* ***THUNDERSTREAK,*** *have led the way to America's present superiority in Air Power.*

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UNIVERSITY OF ILLINOIS

4th Division I & E

To the Editors:

To keep the record straight, I would like to correct the statement made in Drew Middleton's article, "The Seventh Army," which you published in the August issue:

The statement read.

"One thing that strikes anyone familiar with the Army in Germany is the serious wastage of men on non-essential duties. Listening to the American Forces Network one afternoon, I learned that the program of jazz music to which I listened was sponsored by the Information and Education Division of the 4th Infantry Division. Now the I&E has done good work in Europe with its efforts to tell the soldier why he is, where he is, and what he is fighting for. But does it have to assign men to work out a program of dance music?"

First, there is no Information and Education Division of the 4th Infantry Division. Second, Mr. Middleton apparently means the Information and Education Division of what was, at that time, the European Command, which controls the Armed Forces Network.

The men may have come from the 4th Infantry Division; however, they were not sponsored by the Information and Education section of the Division but are soldiers belonging to the Division Band. The program heard by Mr. Middleton may have been the 4th Division "Militaires," a small group of musicians who perform as a team on off-duty time.

Information and Education within the 4th Infantry Division does not sponsor special activities but confines itself to the specific job of keeping the soldier informed.

MAJ. ROBERT MAUST
Infantry

4th Infantry Div.
APO 39, c/o PM
New York, N. Y.

FO Teams

To the Editors:

I would like to comment on Captain Bush's "Composite FO Teams" which appeared in the November COMBAT FORCES JOURNAL.

Although my rank doesn't show it, I was senior forward observer for a 4.2-inch mortar platoon until December 5 when I was pulled off to serve the rest of my tour as a squad leader.

I worked with 81s and artillery in the time I spent on the hill and found many things that would be difficult if you had a single FO party.

In a case where the rifle company commander would call for all supporting fires either to fire their FPL or to support a large assault group you wouldn't have enough men to operate the radios and observe with any speed. You run into situations here where you can't have your communications in a place where one man can observe and also have his radio. In a setup such as this the observer would lose much time.

To the suggestion that we use two of the 600 series radios, I'd like to add that they are very clumsy and heavy. It would be difficult to fire 81s, 4.2s, 105s and 155s as well as the long toms and 8-inch guns at one time with only two radios. You would lose a lot of important time.

Over here we have our radios jammed quite a bit by the enemy. I have seen two radios jammed at the same time but never all four.

In cases where the FOs go on patrol, if one FO is knocked out you would lose all your fire. Also sometimes one of each party has to stay behind to relay from observer to FDC. You wouldn't have enough men under Captain Bush's system.

Under the system we now have, if one man or several are hit there is always some one who can fire. I know that my radio man or I could fire anything we had in Korea and did on several occasions.

I think you will find on everyday fire missions FOs work together enough so that in time each man fires all the weapons and is familiar with the FDC and how the fire commands are given.

I do think that FO parties should be cut to two men in each party. There is no more need for four men in artillery parties than any other. Each party should have an FO and radio man or recon sergeant —whichever you want to call him.

PFC RODNEY RIMBAUGH

APO 25, c/o PM
San Francisco, Cal.

Fifth Army Pilgrimage

To the Editors:

Last spring when we were planning the Fifth Army Reunion Pilgrimage to North Africa and Italy you were kind enough to give it some notice. We now hope you will be interested in knowing that a small group of Fifth Army veterans and their wives had a most memorable six weeks trip. A highlight was a ceremony at Pontecagnano on the beaches of Salerno, where the cornerstone of the Fifth Army Memorial Nursery was laid on 1 October.

The Fifth Army Memorial Nursery will cost $10,000 of which only a small portion was raised before the group sailed in September. It would be much appreciated if you could give notice of this, with a plea that all Fifth Army veterans interested in sending a contribution do so to Boys' Town of Italy, Inc., 29 Broadway, New York mentioning the fact that their donation is for the Fifth Army Memorial Nursery.

It is planned to have the official opening of the nursery on next 9 September which will be the tenth anniversary of our landings at Salerno.

CHARLES E. SALTZMAN

Fifth Army Assn.
38 E. 57th St.
New York 22, N. Y.

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2 GREAT POLICIES FOR PREFERRED ARMY PERSONNEL

THE NEW LEADERS . . .

IN THE PENTAGON . . .



Secretary of Defense Charles E. Wilson, his principal deputy and his three service secretaries posed for this picture when they visited the Pentagon before the inaugural of President Eisenhower. *Seated, left to right:* Defense Secretary Wilson and Roger M. Kyes, Deputy Secretary. *Standing, left to right:* Robert B. Stevens, Secretary of Army; Robert B. Anderson, Secretary of Navy; and Harold L. Talbott, Secretary of Air Force. Mr. Kyes, 46, is a General Motors vice president with 24 years of industrial experience. Mr. Stevens, 53, is a textile manufacturer who served as an artillery second lieutenant in World War I and as a Quartermaster colonel in World War II. Mr. Anderson, 42, is a Texas lawyer and real estate manager. Mr. Talbott, 64, is a Chrysler director and aircraft industry pioneer. In World War I he served in the Signal Corps' aviation section and in World War II he was director of aircraft production for the WPB.

AND ON CAPITOL HILL



SENATOR LEVERETT SALTONSTALL of Massachusetts is the new chairman of the Senate Armed Services Committee. During the First World War he was a lieutenant of Field Artillery and served in France with the 26th Infantry Division.

CONGRESSMAN DEWEY SHORT of Missouri is the new chairman of the House Armed Services Committee. He is a veteran congressman with many years of experience on military committees. He was a lieutenant in the Army during World War I.



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THE PAST IS PROLOGUE

THE new men in the White House and Pentagon—and the new Congress on Capitol Hill—are bringing to our government new vigor, fresh ideas, and high aspirations. These will be made manifest within the months and years to come. As these men settle into their high tasks they will be conscious that their vigor, ideas and aspirations are all modified and enriched by the institutions in which they are working. For much of the strength of government lies in the fact that its institutions, civilian and military, are both stable and flexible, never changing and always changing. In government the past is indeed prologue; the recent and current past as well as the past of older, dimmer times. And so in this period of change it is the part of wisdom for us to cast a brief backward glance at the accomplishments and the aspirations of the departing leaders whose words may be a beacon that lights the future.

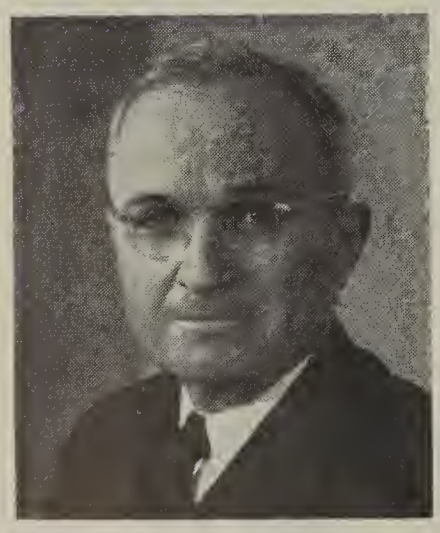
For that reason we present here three statements among the many that have been made by the departing administration.

President Truman in his "State of the Union" message on 7 January spoke plainly and sincerely of the vast new power of our nuclear and thermonuclear weapons and bluntly warned the masters in the Kremlin of the catastrophe another war may bring to the world of men.

Secretary of Defense Robert Lovett tells of the need for a reorganization of the top level of our military organization and suggests certain manifestations of this.

Secretary of the Army Frank Pace, Jr., reviews the research and development accomplishments and programs of the Army.

The soldier reading these three statements will conclude, we believe, that his future, while not easy or hopeful, is a challenging one and well worth experiencing.



THE CHANGING SHAPE OF WAR

From Mr. Truman's State of the Union Message of 7 January

WE have entered the atomic age, and war has undergone a technological change which makes it a very different thing from what it used to be. War today between the Soviet empire and the free nations might dig the grave not only of our Stalinist opponents, but of our own society, our world as well as theirs.

This transformation has been brought to pass in the seven years from Alamogordo to Eniwetok. It is only seven years, but the new force of atomic energy has turned the world into a very different kind of place.

Science and technology have worked so fast that war's new meaning may not yet be grasped by all the peoples who would be its victims; nor, perhaps, by the rulers in the Kremlin. But I have been President of the United States, these seven years, responsible for the decisions which have brought our science and our engineering to their present place. I know what this development means now. I know something of what it will come to mean in the future.

We in this Government realized, even before the first successful atomic explosion, that this new force spelled terrible

danger for all mankind unless it were brought under international control. We promptly advanced proposals in the United Nations to take this new source of energy out of the arena of national rivalries, to make it impossible to use it as a weapon of war. These proposals, so pregnant with benefit for all humanity, were rebuffed by the rulers of the Soviet Union.

The language of science is universal, the movement of science is always forward into the unknown. We could not assume that the Soviet Union would not develop the same weapon, regardless of all our precautions, nor that there were not other and even more terrible means of destruction lying in the unexplored field of atomic energy.

We had no alternative, then, but to press on, to probe the secrets of atomic power to the uttermost of our capacity, to maintain, if we could, our initial superiority in the atomic field. At the same time, we sought persistently for some avenue, some formula, for reaching an agreement with the Soviet rulers that would place this new form of power under effective restraints—that would guarantee no nation would use it in war.

I DO not have to recount here the proposals we made, the steps taken in the United Nations, striving at least to open a way to ultimate agreement. I hope and believe that we will continue to make these efforts so long as there is the slightest possibility of progress.

All civilized nations are agreed on the urgency of the problem, and have shown their willingness to agree on effective measures of control—all save the Soviet Union and its satellites. But they have rejected every reasonable proposal.

Meanwhile, the progress of scientific experiment has outrun our expectations. Atomic science is in the full tide of development; the unfolding of the innermost secrets of matter is uninterrupted and irresistible. Since Alamogordo we have developed atomic weapons with many times the explosive force of the early models, and we have produced them in substantial quantities.

And recently, in the thermonuclear tests at Eniwetok, we have entered another stage in the world-shaking development of atomic energy. From now on man moves into a new era of destructive power, capable of creating explosions of a new order of magnitude, dwarfing the mushroom clouds of Hiroshima and Nagasaki.

We have no reason to think that the stage we have now reached in the release of atomic energy will be the last. Indeed, the speed of our scientific and technical progress over the last seven years shows no signs of abating. We are being hurried forward, in our mastery of the atom, from one discovery to another, toward yet unforeseeable peaks of destructive power.

Inevitably, until we can reach international agreement, this is the path we must follow. And we must realize that no advance we make is unattainable by others, that no advantage in this race can be more than temporary.

The war of the future would be one in which man could extinguish millions of lives at one blow, demolish the great cities of the world, wipe out the cultural achievements of the past—and destroy the very structure of a civilization that has been slowly and painfully built up through hundreds of generations.

Such a war is not a possible policy for rational men. We know this, but we dare not assume that others would not yield to the temptation science is now placing in their hands.

WITH that in mind, there is something I would say to Stalin: You claim belief in Lenin's prophecy that one stage in the development of Communist society would be war between your world and ours. But Lenin was a pre-atomic man, who viewed society and history with pre-atomic eyes. Something profound has happened since he wrote. War has changed its shape and its dimension. It cannot now be a "stage" in the development of anything save ruin for your regime and your homeland.

I do not know how much time may elapse before the Communist rulers bring themselves to recognize this truth. But when they do, they will find us eager to reach understandings that will protect the world from the danger it faces today.

It is no wonder that some people wish that we had never succeeded in splitting the atom. But atomic power, like any other force of nature, is not evil in itself. Properly used, it is an instrumentality for human betterment. As a source of power, as a tool of scientific inquiry, it has untold possibilities. We are already making good progress in the constructive use of atomic power. We could do much more if we were free to concentrate on its peaceful uses exclusively.

Atomic power will be with us all the days of our lives. We cannot legislate it out of existence. We cannot ignore the dangers or the benefits it offers.

I believe that man can harness the forces of the atom to work for the improvement of the lot of human beings everywhere. That is our goal. As a nation, as a people, we must understand this problem, we must handle this new force wisely through our democratic processes.

Above all, we must strive, in all earnestness and good faith, to bring it under effective international control. To do this will require much wisdom and patience and firmness. The awe-inspiring responsibility in this field now falls on a new Administration and a new Congress.

I will give them my support, as I am sure all our citizens will, in whatever constructive steps they may take to make this newest of man's discoveries a source of good and not of ultimate destruction.

WE cannot tell when or whether the attitude of the Soviet rulers may change. We do not know how long it may be before they show a willingness to negotiate effective control of atomic energy and honorable settlements of other world problems. We cannot measure how deep-rooted are the Kremlin's illusions about us. We can be sure, however, that the rulers of the Communist world will not change their basic objectives lightly or soon.

The Communist rulers have a sense of time about these things wholly unlike our own. We tend to divide our future into short spans, like the two-year life of this Congress, or the four years of the next Presidential term. They seem to think and plan in terms of generations. And there is, therefore, no easy, short-run way to make them see that their plans cannot prevail.

This means there is ahead of us a long, hard test of strength and stamina, between the free world and the Communist domain—our politics and our economy, our science and technology against the best they can do—our liberty against their slavery—our voluntary concert of free nations against their forced amalgam of "People's Republics"—our strategy against their strategy—our nerve against their nerve.

ABOVE all, this is a test of the will and the steadiness of the people of the United States.

There has been no challenge like this in the history of our republic. We are called upon to rise to the occasion as no people before us.

What is required of us is not easy. The way we must learn to live, the world we have to live in, cannot be so pleasant, safe or simple as most of us have known before, or confidently hoped to know.

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REORGANIZATION AT THE TOP

From a letter by Secretary of Defense Robert Lovett to the President

THE primary purpose of the Department of Defense is, of course, to protect and defend this country. This duty may involve fighting a war. If this becomes necessary, the duty of the Department of Defense is to fight a successful war. . . . The better equipped the Department of Defense is to fight, the better it serves its role of a deterrent to war.

* * *

Under the present Act, and in the event of war, I believe that the present system of controls provided in the legislation for the exercise of authority by the Secretary of Defense in some areas, will prove to be inadequate. . . .

It would in these circumstances be necessary, I believe, to undertake a reorganization which would not only seriously disrupt the effective prosecution of the war but which could not even start until the necessary authority was secured from the Congress.

I conclude, therefore, that we should not deliberately maintain a Department of Defense organization which in several parts would require drastic reorganization to fight a war. As I see it, this reorganization can be made in an orderly fashion under the present workload without too much difficulty.

A few of the more important areas requiring attention are mentioned below.

SECRETARY OF DEFENSE

THE National Security Act of 1947, as amended in 1949, strikes a compromise in many important areas. It has the fault of all compromises and while the amendments materially improve the Act, there are still contradictions and straddles in it. The Act states that the Secretary of Defense is to be "the principal assistant to the President in all matters relating to the Department of Defense." Under the direction of the President and subject to the provisions of the Act, he has "direction, authority and control over the Department of Defense."

The Joint Chiefs of Staff, according to the Act, are "established within the Department of Defense" and shall be "the principal military advisers to the President, the National Security Council and the Secretary of Defense" and "subject to the authority and direction of the President and the Secretary of Defense," they shall perform certain specified duties.

The question is occasionally raised by legal beavers as to whether or not, in view of vagueness in the language of the Act, the Joint Chiefs of Staff are directly under the Secretary of Defense. . . .

While, in my opinion, the authority granted the Secretary of Defense is superior to any made to the Joint Chiefs of Staff . . . it may be well to remove by legislative amendment this area of possible debate. . . .

. . . [The Act] provides that the three Military Departments shall be "separately administered," while at the same time providing that the Secretary of Defense shall be head of the Department of Defense which shall have within it the three Military Departments over which the Secretary of Defense shall have "direction, authority and control." No great difficulties have been encountered because of this straddle, except in the field of supply warehousing and issue, where certain ardent separatists occasionally pop up with the suggestion that the Secretary of Defense play in his own back yard and not trespass on their separately administered preserves. I feel that the Secretary of Defense clearly has authority to step in where necessary in these fields, provided he does not transfer, reassign, abolish or consolidate any of the "combatant functions assigned to the Military Services" by the Act.

JOINT CHIEFS OF STAFF

IN brief, the weaknesses [in the JCS] stem from (1) excessively rigid statutory prescriptions of functions, (2) rigid statutory composition which makes the agency, in effect, an Interdepartmental Committee, and (3) the requirements in the statute that each agency perform functions inappropriate, if not actually impossible, for an Interdepartmental Committee to perform efficiently and expeditiously.

. . . I do not consider the present organization adequate, . . . because it leaves certain responsibilities obscure [and] does not provide the type of military guidance needed. . . .

The problem . . . is the most difficult and delicate one in the field of our national defense structure since it involves the striking of a proper balance between civilian and military control. It is clear that overall "civilian control" is essential and that it is fundamental to our form of government. Yet civilian judgment must be based on adequate military advice given by professional military men in an atmosphere as free as possible from service rivalries and service maneuvering.

The President, the National Security Council, the Secretary of Defense and the three Service Secretaries clearly must have proper military advice. On the other hand, they should not, in my opinion, attempt to conduct military operations and they should avoid hampering the military in carrying out their specialized functions assigned to them by law. The most effective work which the civilian Secretaries can do lies, as I see it, in the establishment of policies under the guidance of the President, as Commander in Chief, and in the exercise of direction, authority and control of the Military Departments themselves.

By their very make-up it is extremely difficult for the Joint Chiefs of Staff to maintain a broad non-service point of view. Since they wear two hats . . . it is difficult for them to detach themselves from the hopes and ambitions of their own Service without having their own staff feel that they are being let down by their Chief. The maintenance of an impartial, non-partisan position becomes increasingly difficult in times of shortage of either men, money or material. . . .

. . . The present Joint Chiefs of Staff organization is . . . grievously overworked as a result of the great volume of papers referred to them for their views. In consequence, they are too deeply immersed in day-to-day operations, frequently of an administrative character, to have adequate time to devote to their major responsibilities—the preparation of overall, joint and combined strategic plans, the development of logistic plans, the review of such plans in the light of the material and personnel situation and the effect of new weapons.

The problem above is aggravated by the fact that the Secretary of Defense has no military staff. In consequence, he must refer to the Joint Chiefs of Staff a vast amount of administrative and policy matters, unrelated to their main functions. . . .

Strangely enough, the fact that the Secretary of Defense is prohibited from having a staff is not generally realized.

* * *

The reason for this provision is fairly clear in the legislative history and is a derivative of the line of thinking which developed the compromises through fear of the establishment of an "Armed Forces General Staff" . . . compromise and unnecessary apprehension . . . have succeeded in making the Joint Chiefs of Staff a sort of clearing house for papers instead of having it occupy its rightful position and instead of leaving the members of the JCS adequate time for their great responsibilities.

. . . The broad national service point of view, as compared with the single service point of view, is not merely a problem of the individuals making up the Joint Chiefs of Staff, but is more likely in the Joint Staff which prepares the papers and submits the analysis and studies to the Joint Chiefs of Staff. This Staff of officers of approximately equal numbers from each of the three Armed Services . . . are of relatively junior grades and their future careers and promotions lie in their separate services. It is not unnatural, therefore, that they should from time to time become the advocate of their own Service's point of view. . . .

* * *

Based on experience so far, I believe that the problem might be solved by a reorganization along the lines of Alternate I. A more radical long-term possibility is indicated in Alternate II below:

Alternate I

(1) Re-define and clarify the functions of the Joint Chiefs of Staff so as to confine them exclusively to planning functions and the review of war plans in the light of new weapons and techniques, transferring the balance of the present military staff functions of the Joint Chiefs under No. 4 below.

(2) The Joint Chiefs of Staff should create a strong planning division which would constitute their principal staff.

(3) It should be clearly understood . . . [that] . . . each Chief of Staff has very broad powers of delegation to his Vice Chief.

(4) The balance of the military staff functions should be transferred to the Office of the Secretary of Defense to provide him with a combined military-civilian staff. This staff would be responsible only to the Secretary of Defense, and through him to the President, and the efficiency ratings and promotions should be controlled by him. . . .

(5) The Joint Chiefs of Staff should not "operate" or "command" except in time of war and then "by direction." Unified commands should be established by the Secretary of Defense, with the advice of the Service Secretaries and the Joint Chiefs of Staff, and should be assigned to a Military Department as the Secretary of Defense's agent, if necessary, and not to a member of the Joint Chiefs of Staff in his other capacity as the Chief of a Service. Flexibility is required in this field in order to deal with different situations as they may exist. The Act currently makes possible the violation of the principle of civilian control by leaving it confused as to whether, in the case of unified commands, the theater commander reports to the Joint Chiefs of Staff or the Secretary of Defense. In my opinion, the Secretary of Defense . . . should, in effect, be the Deputy of the Commander in Chief and, therefore, any unified command should be established by him, report as directed by him and, similarly, receive orders by his direction.

(6) The Chairman of the Joint Chiefs of Staff should be given a "vote." While the "voting" procedure is not normally used, the Act denies the Chairman a "vote." It is perfectly obvious that he will have, or should have, some opinion on the matters which come before the JCS for discussion and it is unrealistic to assume that the Secretary of Defense will not ask his opinion or that he will not give it. . . . He should not, however, be given the power of decision, which must remain in the President and the Secretary of Defense if civilian control is to be maintained. But the Chairman must be a participant in the discussions, looking toward unanimity of opinion on a course of action, or failing to get unanimity, he must identify the differences of opinion and submit the various points of view, together with his own, to the Secretary of Defense for decision.

Alternate II

AN alternative approach which might provide a solution would require a series of evolutionary steps and the adoption of a system, all the implications of which I have not adequately thought out. It would involve a change in the make-up of the Joint Chiefs of Staff by having its membership consist of senior officers who have served as Chief of Staff of one of the three Services and who immediately upon completion of such duty becomes a member of a Combined Staff. The divisions of this staff would consist of functional staffs of professional military officers in the fields of strategic planning, logistic planning, military requirements and overall military policies. This group of officers would have a separate promotion system and would be accountable only to the Combined Staff, the Secretary of Defense and the President. There would be no single Chief of Staff and the Chairmanship might rotate. . . .

The establishment of any unified staff along the above lines would require the development of a system to provide properly trained personnel. This process would take several years to develop and perfect, since it would seem to require additional specializations in certain scientific, technical and industrial fields. . . . I conclude, therefore, that the more moderate reorganization in Alternate I is preferable at this time.

MUNITIONS BOARD

THIS Statutory Board, with built-in rigidity under the existing Act, will not, in my opinion, be able to perform adequately in time of war the various

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functions presently assigned to it by statute. There are three principal inadequacies in its organization.

First, the membership of the Board, prescribed by law, compels three of the four members to sit as judges on their own requests and to pass on estimates of production, on schedules and on procurement and distributing systems for which they are each responsible in a separately administered Service.

I believe that real flexibility in the make-up of the Board is needed and the selection of the Board should be left to the Secretary of Defense in order to permit the inclusion of a number of men of broad industrial, engineering, scientific and general business background. . . .

Secondly, the military advisers of the Board and the military members of the Board's combined military and civilian staff can be subjected to pressure by their branch of the Service because of the control of fitness reports and promotions by their Services. . . . This problem and its cure is about the same as in the Joint Staff.

Thirdly, the duties assigned to the Munitions Board by the Act are confused by the apparent emphasis on the planning aspects of procurement, production and distribution problems associated with industrial mobilization, thereby permitting technical challenges of the validity of its decisions by doctrinaire proponents of "separate administration." . . .

The suggestion has been made that . . . the Munitions Board be abolished and that its functions be transferred to the Secretary of Defense [who would] establish a Munitions Advisory Board. . . . Under this approach to the problem, the Chairman of the Munitions Board should be replaced by an additional Assistant Secretary of Defense.

THE ARMED SERVICES

THE organizations of the Army, Navy and Air Force are all different. The responsibilities and authorities of the Chiefs of Staff of the three Services differ. Their present organization follows a pre-unification pattern and some parts are fixed by law while others are not.

It would be well, I think, to have a thoroughgoing functional and organizational study of the three Military Departments, now that they are part of the Department of Defense, to determine the good and bad points in the organization and to take common advantage of the best features of each Service.

As an indication of one area in which modernization and improvement appears to be needed, consider the . . . seven technical services in the Army—Corps of Engineers, Signal Corps, Quartermaster Corps, Medical Corps, Chemical Corps, Transportation Corps and Ordnance Corps . . . all are in one degree or another in the business of design, procurement, production, supply, distribution, warehousing and issue. . . .

It has always amazed me that the system worked at all and the fact that it works rather well is a tribute to the inborn capacity of teamwork in the average American.

* * *

A reorganization of the technical services would be no more painful than backing into a buzz saw, but I believe that it is long overdue. I have a memorandum outlining one method of reorganization which looks promising. The study is recent and was completed in September 1952.



WEAPONS AND MEN FOR THE FUTURE

From the Semiannual Report of Secretary of the Army Frank Pace, Jr.

ARMY research and development has been geared to producing the swiftest moving, hardest hitting battle team in our history: in short, an Army possessing the most effective firepower and mobility possible. We already have recoilless rifles, non-metallic mines, the Skysweeper antiaircraft gun, the utility and transport helicopters, and a heavy artillery gun capable of firing both conventional and atomic projectiles . . .

The Army is devoting top priority to all aspects of atomic warfare. It is consequently pushing ahead vigorously with the development of its own methods of delivery of atomic fire power, at the same time that it is supporting complementary delivery methods of the other two Services. In the surface-to-surface field, the Army is developing a family of missiles which are designed to carry high explosive or atomic warheads well beyond the ranges of existing artillery weapons, even under the most adverse weather conditions. Our knowledge of the effects of atomic weapons on personnel and equipment has been considerably increased through participation in development tests conducted by the Atomic Energy Commission.

However, even with the amazing developments of science, there is no reason to believe that warfare in the future would not require many of our current conventional weapons. Push-button warfare that would eliminate the man on the ground exists only in the realm of science-fiction—and I emphasize the word "fiction." Therefore, while preparing the weapons of tomorrow, we have continued to improve the weapons of today.

A new improved medium gun tank (the M47) has been tested and accepted as an interim weapon. With its more powerful 90mm gun and an improved fire-control system, it can score a hit on the first round of an engagement more often than any other known tank. A completely new medium tank, the Patton 48, that will eventually replace the M47, is going into production. Improvements include a cast armored hull with sharply angled slopes to lessen the effect of enemy shells.

Research has uncovered principles permitting the development of new techniques against enemy armor. New ammunition of radical design can be used in many weapons presently in the hands of troops to counter any tank which can be expected to be placed in the field.

THE Operations Research Office [Johns Hopkins University] has undertaken many important studies in the field of operations analysis. These studies have covered a wide range of problem areas, such as psychological warfare, atomic energy, guided missiles, armor, battlefield illumination, close air support, intelligence, logistics, and cost and relative effectiveness of various Army weapons. To insure that its studies have a practical battlefield application, 40 percent of the permanent staff of ORO and 110 scientists under contract to it have now served in Korea. The Operations Research Office studies have provided the Army with candid self-criticism which has led to corrective action and improvement in complex areas of Army operations.

Research in the field of human resources is a serious undertaking in the Army. More than the other Services, our success depends on the performance of the human being—how well our soldiers do their dirty, tough, and vital job in the battlefield and how well others back them up. When one considers the long lead time involved in producing capable noncommissioned and commissioned officers—the backbone of our Army—it is apparent the Army has a great investment in its personnel; we must make every effort to get maximum benefit from each individual's talents and energies. We know that a comparatively small investment in this highly important field of "human engineering" will produce real dividends.

Our newly established Human Resources Research Office [George Washington University] aims its studies at developing improved personnel selection and classification, leadership, morale, and training methods and techniques.

OUR Research and Development Program also has been instrumental in bringing about a continuing improvement in the innumerable military items, aside from weapons, which are essential to the combat efficiency of our forces. A large number of the items of communications and electronic equipment placed in procurement in the fiscal year were of new design since World War II, including a new walkie-talkie radio set, a new handie-talkie set, a new series of front-line vehicular radio sets, a new portable teletypewriter, a new portable switchboard, a new mortar locator, and a miniaturized radar beacon for rockets. A milestone in communications progress has been achieved with the development of an experimental radio-teletypewriter converter using transistors instead of vacuum tubes.

Significant progress has been made in improved infrared equipment for combat application, development of gas generating equipment for field production of guided missile propellants, improved mine detecting and mine clearing equipment, and alternate designs of equipment to reduce the use of critical materials, especially in the field of fixed bridging. New developments have been applied to facilitate amphibious operations.

In the field of transportation, numerous important projects were carried forward during the year. A typical project which was brought to the production stage is the 60-ton special purpose barge.

Combat operations in Korea have demonstrated that helicopters provide a considerable advance in the mobility for support of land forces. They have saved many lives. Cargo types are being procured and programs to effect their improvement are under way.

Largely due to the medical research and development program, the death rate from combat wounds has decreased about 50 percent since World War II. A combination of constant evaluation of new techniques, drugs, and equipment as applied to field medicine and their integration into an over-all plan of evacuation and treatment is responsible for this record. . . .

ALTHOUGH the Army's program of harnessing atomic energy has been directed primarily toward warhead application with emphasis upon expanding the Army's family of atomic weapons, increased recognition has been given to atomic applications in nonweapon fields of interest to the Army. In recognition of the great potential developments in these fields the Army, in close collaboration with the Atomic Energy Commission, has taken steps to initiate, study, and develop military characteristics.

Without placing a limitation on the potential benefits in these areas of research and development, the Army has identified in general terms the following fields where it has a compelling and legitimate interest:

▶ Static power plants, particularly in isolated areas where conventional power is not applicable but where the Army may have to operate. An atomic generator at such installations could possibly compete with and outstrip the more cumbersome and time-consuming installations of conventional power generating equipment. It is conceivable that such static-type generators might be designed with mobile platforms. If this design proved feasible the Army might accomplish a great gain in the reduction of bulk fuel requirements transported over long supply lines.

▶ Allied with this power plant development might be the field of light metals development. Such metals are presently obtainable only at prohibitively high unit prices. If they were found to be subject to electric furnace and similar treatment, low cost-high power sources would seem to offer promise of advancing the production of such metals in commercial quantities. If production of light, tough metals with high heat resistance characteristics could be brought about, they would have great military use. This would be particularly true if these metals were to be available for the production of weapons, ammunition, combat vehicles, technical transport, and the like.

▶ The marriage of light metals to atomic energy may offer a further range of applications, as yet untapped, in the use of such energy as a mobile power source. The weight resulting from the use of conventional metals for the fabrication of reactors tends to make application as a mobile power source somewhat impractical. This impracticality is particularly demonstrated when the shielding requirements entail the use of dense metals. While mobile power applications immediately suggest the field of heavy land transport, other applications will not be overlooked in the prospective Army exploration of this field.

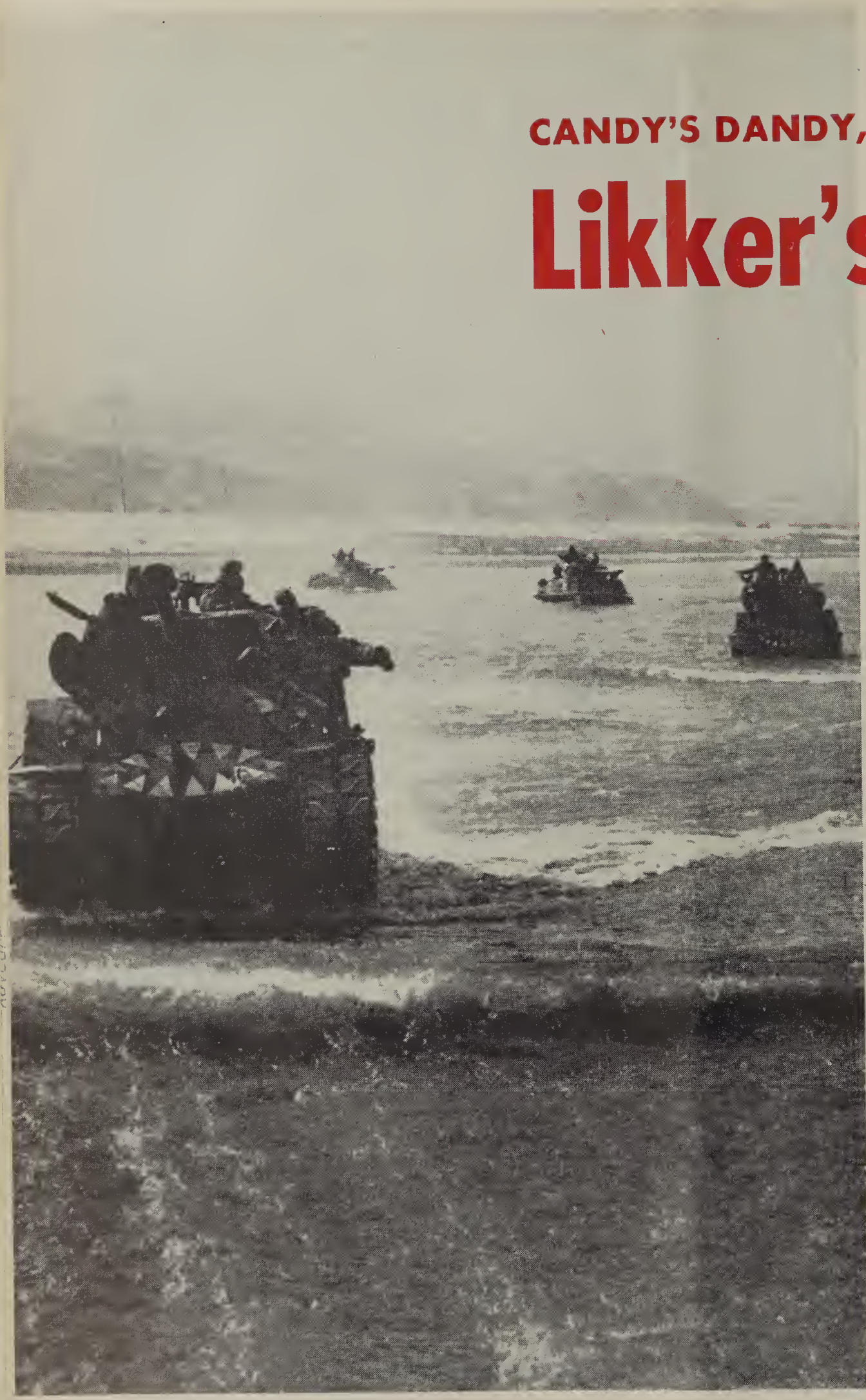
Although the Army for many years has participated in the research of the bio-physical aspects of atomic energy, this nonweapon research will be extended as a part of this program of greater emphasis.

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CANDY'S DANDY, BUT

Likker's Quicker

Lieutenant Colonel
George B. Pickett, Jr.



Slip up on the enemy's blind side and smack him and you are using the "indirect approach." It takes deceit and fast movement and armor is the weapon.

IN matters of war as well as of the heart, there are several ways of accomplishing the mission, but one particular way is usually the surest and quickest, though of course in affairs of love there is more often a second chance. Usually the first side to use new ideas and techniques that are valid stays at least one victory ahead.

More and more books and manuals come out to guide our combat leaders. The early days in Korea found many a rule in the "new book" regularly broken—but by necessity. Units were thrown quickly into the line without satisfactory combined arms training, and as the war went on it was plain that the small-unit tactics taught at Knox and Benning were sound. But rifle company commanders did find themselves defending extremely wide (try 7,000 yards for size) fronts. There was nothing then in anybody's book on how to do that.

What's in the book is right but a lot of things just aren't in the book.

But look closer at Korea. What have we learned tactically there that hadn't already been learned in World War II? It's true that a lot of us got quite a bit of retrograde movement experience—second only to the experience of the Union Army after Bull Run. But the overall small-unit tactics were basically the same as World War II, especially in Italy. The scale of armored operations has been small, but the results obtained with the armor units we had then have

LIEUTENANT COLONEL GEORGE B. PICKETT, JR., Armor, served in the 11th and 16th Armored Divisions during the Second World War and also served with armor in Korea. He is a 1941 graduate of the Military Academy and was originally commissioned in the Infantry.

been large. Don't fall into the mistaken group that have "learned" that "Korea has shown tanks are out." Our tanks in Korea operated against the enemy in the face of every known obstacle of terrain, weather, lack of logistical support, parts shortages, and lack of prior training. Yet the record shows that in all large-scale successes tanks participated. And often they made the difference between victory and defeat.

Let no one forget how Company A, 72d Tank Battalion, fought against fantastic odds at Kapyong in April 1951, enabling three UK battalions to plug a division-size hole. This same 72d Tank Battalion had stopped North Korean armor cold on 6 September 1950 on the Naktong. The arrival of our armored units helped tremendously in sounding the death knell for the North Korea People's Army in South Korea.

THE fighting in Korea has gone through several tactical stages. The defensive phase of delaying action and defense of the Pusan Perimeter was followed by the breakout at Taegu and Chinju and the "Patton-type" advances almost to the Yalu—only to be followed by the Chinese intervention and the withdrawal to south of the 38th parallel. It was this second phase—the blitz from the Pusan Perimeter to the Chongchon River in North Korea—that destroyed the NK army by "indirect approach."

The indirect approach is not new but has been advocated for many years by Liddell Hart and others. The indirect approach, applied to war, involves striking a hard blow at the enemy in an area or location where he can not afford to absorb it, avoiding a major battle with the enemy's forces. This may sound hard but General MacArthur understood it when, in World War II, he bypassed heavily garrisoned islands to strike at islands closer to the main Japanese bases, leaving the by-passed garrisons to "wither on the vine." The indirect approach was the stock in trade of every armored task force commander in Europe in World War II—if he commanded under the late General George S. Patton. In those days there were many references to "Indian country" left behind us, and "roads and shoulders cleared of mines and Krauts." While the expression "indirect approach" meant little to most of us at the time, the principle of destroying an enemy by hitting into his rear and destroying his communications and supplies, blocking the movement of his reserves, and isolating his forces—the majority of whom were still intact—from their support was understood and exploited by most all of us.

One of the major controversies among the defeated German generals trying to explain their defeat in Russia was a conflict over the theory of the direct approach of destroying the enemy's armed forces by pitched battles as against the theory of indirect approach. Using the direct approach, the Germans destroyed hundred of thousands of Russians and captured vast expanses of territory. But their "wedge and trap" tactics failed to obtain a decisive result and wasted precious time, enabling the Red Army to rebuild a force to defend Moscow and enlist the aid of an ally—General Winter.

THE German "armored" generals, who termed the believers of the "direct" approach "infantry" generals, believed that a quick breakthrough, followed by an all-out armored drive to seize Moscow, would have ended the Russian campaign long before the first snow of 1941. This belief, based on prior German victories, was that the by-passed Russian forces would have been incapable of sustained action and could have been contained by German and Axis infantry while armor made a decisive stroke at Moscow and overran Soviet communications. Since this wasn't tried, no one can say whether it would have worked, but it did work every time the Germans actually tried it. Think of what a rugged season they gave the Allies with only 600 tanks in the Ardennes in December 1944. This "indirect" approach eventually failed because they lacked air power and logistical support.

The "indirect approach" is not a cure-all, to be sure. There can be no stock solution to tactical problems. There will continue to be situations at various levels where the only solution is to destroy the enemy. There was no "indirect" method of halting the CCF in Korea in November-January 1950-51. The "direct" approach of simply killing Chinese was the only solution. Likewise, a company commander assigned an objective can't take his objective by interdicting the enemy supply line. Moreover, there are many situations where a direct approach must first be made to secure the opportunity for an indirect approach. If there are no open flanks, a penetration must be made through the enemy's battle position to open the route to his rear for the practitioners of the indirect approach.

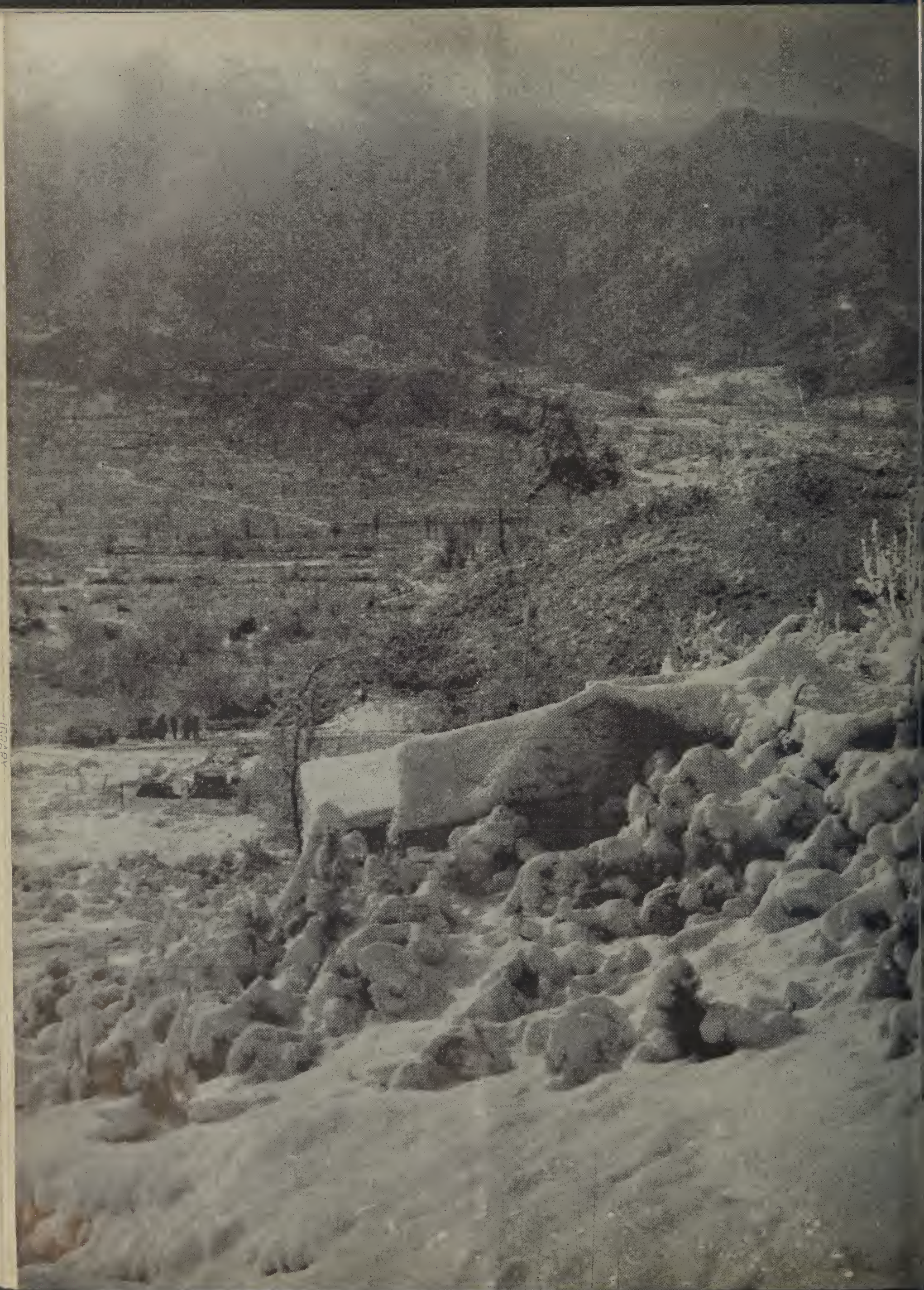
ARMOR is the weapon with which to exploit the indirect approach. Mobility is needed to overrun the enemy's rear quickly and move fast enough to seize distant objectives before their defense can be organized. Too many of us think of pursuit and exploitation as the same thing. Actually, you pursue a defeated or withdrawing force; but you exploit opportunities to employ the indirect approach.

The indirect approach is obtained by means other than mere selection of a strategic objective and the routes of maneuver to that objective. Crossing the appropriate palm with silver has been and always will be one of the easiest ways to gain a quick advantage. There are always Benedict Arnolds to be found. Potential enemies will try to use subversion, greed, class and social hatreds, corrupt officials, strikes, and numerous other indirect approaches to lessen the effectiveness of our own armed forces. One interesting example occurred in the War Between the States when two Confederate scouts fired into adjacent Union bivouacs simultaneously. The ensuing debacle almost destroyed a Union regiment at a cost to the Confederates of two minié balls.

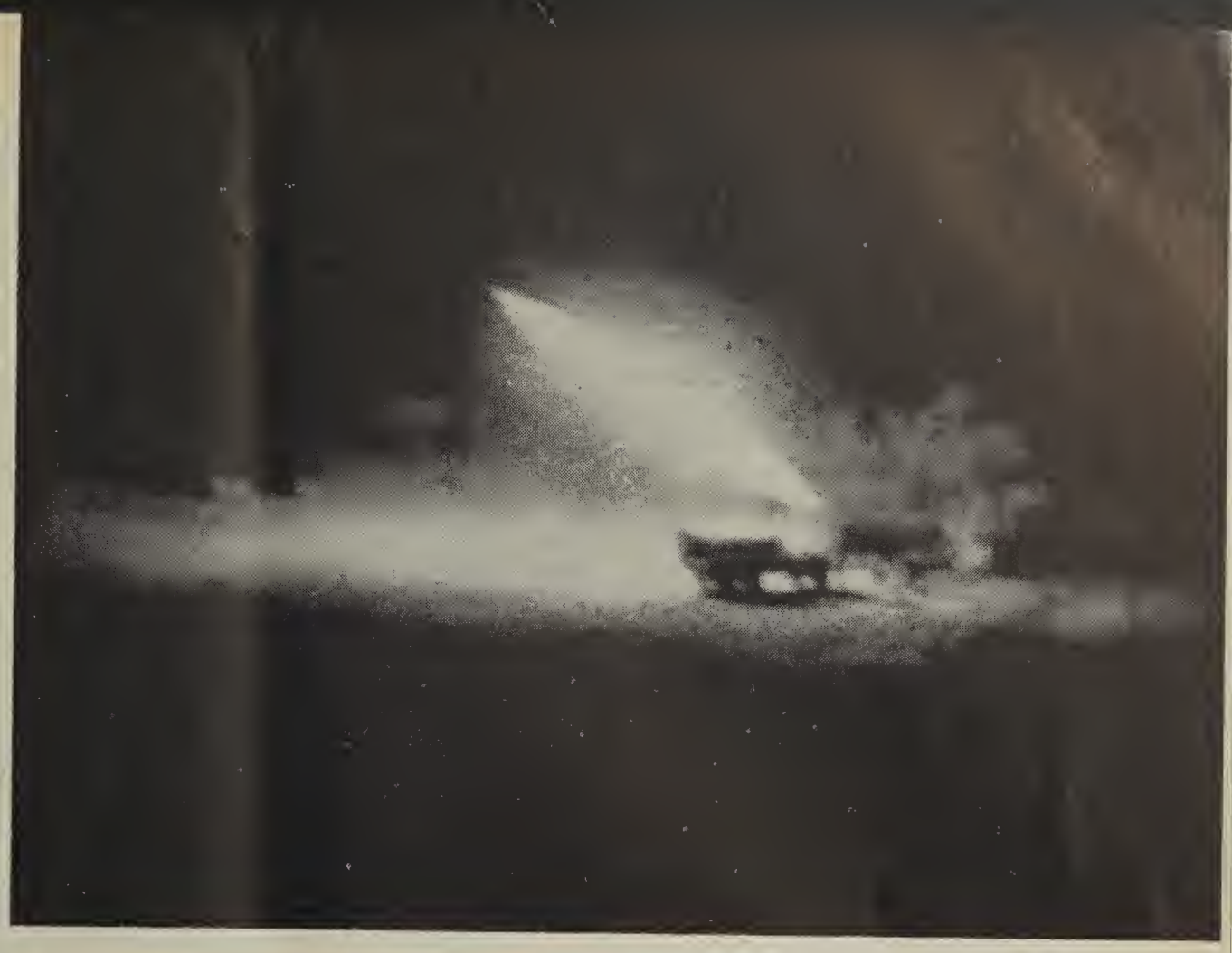
The Great Captains were all advocates of the indirect approach in some form or other. Napoleon gained a field during one desperate encounter by using a group of buglers to sneak into the enemy rear and sound the charge. He was a master at the turning movement deep in the enemy rear. His defeats and failure started when he began to rely on superiority of numbers in direct combat. Grant almost pounded his army to pieces against Lee's outnumbered and ragged veterans at Cold Harbor before he switched to an indirect approach that tied Lee down to a battle of attrition before Petersburg; one that the Army of Northern Virginia could not afford and eventually destroyed itself "licking the Yankees." Sherman plundered and tore up railroads from Atlanta to Savannah—and had someone else fight Hood's army.

WE need to learn more about the indirect approach in our service schools and elsewhere. Years are spent pounding single envelopment, double envelopment and penetration into the ears of the student. He is taught to be a tactical genius who strives for the opportunity to surround and destroy his opponent. Both approaches—direct and indirect—must be presented to our future generals to make sure that when later their operational plans are developed, they will facilitate final victory and not merely produce a spectacular success of the moment.

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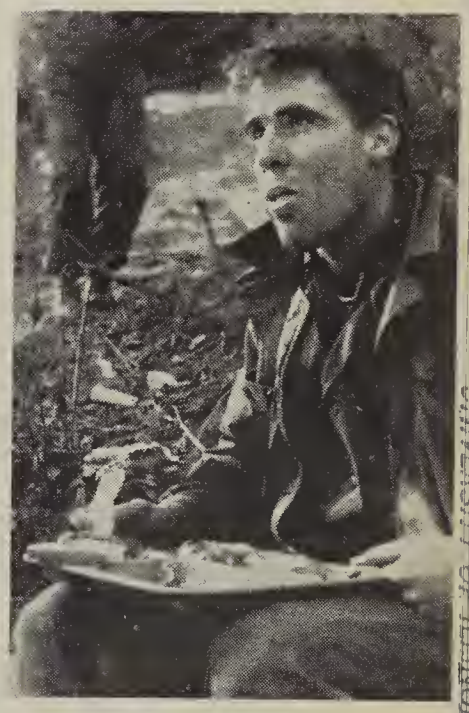
↑ A rocket launcher lights up the cold darkness of a Korean night.

← The first snow of the year brings beauty to the war-torn Kumhwa Valley on the Central Front.

KOREA'S WINTER

A Doughboy back from outpost duty fills → up with hot chow.

Smoke but little heat pours from the generators manned by a Chemical Corps ↓ outfit.





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Like the peppery shortstop who puts his team in a scrappy mood with his constant chatter, the fighting squad can become an aggressive, confident unit and get more firepower the cheapest possible way if all members—

Talk It Up

Captain James B. Tatum

THE mission of the Army has been stated as the destruction of the enemy in the field. American science and industry have developed weapons for the foot soldier superior to any known enemy's weapons. Our soldiers ought to be made aware of them.

These weapons, properly used both individually and collectively, will give him fire superiority over the enemy.

General S. L. A. Marshall is probably the most stimulating combat factor for a great number of us. His studies and reports on the number of men who actually fire in battle are known throughout the Army. But action to remedy the situation he found is still lacking in many outfits. Here is a possible solution.

Three things are critical in firepower—assuming that the men firing are qualified to shoot their particular weapons. The first two are communication and control. The other is use of the ground.

In bringing up communication and control I'm not concerned with radio or wire at all. What I have in mind is a system of communication and control among soldiers and their leaders right down in the rifle squad. There is no wire, no radio, for the men of such squads when they attack. As things are they have to rely on a sense of feeling, or on observation which is often limited.

There is just one way to get this missing communication and that is to "talk it up." You can walk to the nearest ball park any summer day and see them talking it up in great style. Coaches, managers, players—and not just in baseball—have realized the great value of keeping their teams in tiptop aggressive shape by using plain, ordinary voice power. Constant chatter from the peppery little shortstop not only bolsters his teammates' morale but also has a marked effect upon himself. And the spirit of the opposition is always somewhat dampened by the noisy, confident foe playing against them.

THIS same process works on the battlefield in much the same way.

Every fighting man—infantry, armor, artillery, engineer, and everybody else who gets into the shooting—gains confidence and aggressiveness from hearing the sound of his own voice.

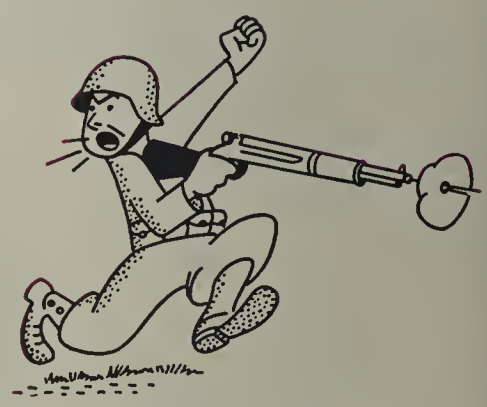
He gains further confidence from hearing the shouts of the other men in his own squad or section.

The leader gains better control by greater use of his sense of hearing.

The enemy, hearing the confident racket, will feel the sense of fear our own troops have often felt when a yelling, shouting attacker is coming at them.

With this greater aggressive spirit, more men are bound to fire their individual weapons, and crews of crew-served weapons will coordinate much better.

ALL troop leaders in practically every situation must give great consideration to terrain. General Collins rightly stressed this in his recent fine article in this magazine. Every man, and especially every rifleman, must become expert in judging every insignificant dip and hump in the ground as effective cover. The man who hasn't been trained to spot such places automatically, and hit them when he needs them, will be meeting just the same subconscious



thought of self-preservation without knowing what to do. Consequently, his every effort will not be directed toward reaching the objective as he automatically uses the ground. And this will inevitably result in a big loss in total firepower and a general weakening of the over-all drive ahead.

All men in training should undergo problems designed to check their selection of cover in the attack. And this point should be stressed in every tactical phase of training until it becomes instinctive.

One outstanding platoon leader in Korea had excellent results with a system that obtained superior individual use of the ground, as well as communication and control.

By merely instructing his men to move in short rushes and pick cover spots, he set up the basis for imposing his plan of having every man yell "shoot" (and execute his own command) when he jumped up and moved forward—and yelling "cover" as he dropped into a position of cover. This plan was carried out to perfection and it resulted in the successful taking of every objective. This platoon leader was certain that the number of his men who actually fired was high, and his control over his platoon was quite adequate. He took all his objectives with relatively few casualties.

CAPTAIN JAMES B. TATUM, Infantry, is on duty at the Army General School, Fort Riley, Kansas.



Colonel Thomas H. Hayes

A "military corridor" includes the crests of two ridges and the ground between—which suggests that we should all be careful with military terminology

I HAVE read with interest the excellent article in your October issue "Run the Ridges and Win" by Major Gerald F. Averill of the Marine Corps. Despite its many virtues it contains an implied, unjust criticism of doctrine which is misleading.

Major Averill says "Until they learned better, the ground combat forces of the U.S. in Korea had a strong and inflexible tendency to stress *corridors* as *the* way to enter the main battle position of the enemy. *Ridges* were mentioned in the books as *possible* avenues of approach, but most tacticians treated the subject slightly, or ignored it completely."

I feel it is necessary to call attention to the fact that in military terminology a corridor is *not* a valley as suggested; but rather includes the crests of *two* ridges and the ground between. Even the non-technical meaning of corridor should have alerted the author for it is generally recognized as a passageway with protecting sides. Our doctrine says that to attack the enemy main battle position (penetration) the most favorable terrain feature is a corridor running toward the objective. This in essence says "Run *two* Ridges and Win."

Therefore the alleged disastrous "tendency to stress corridors" indicates a possible misinterpretation of doctrine within the ground combat forces.

The proper use of a corridor in the attack of an organized position is illustrated as follows. A commander, for example, a division commander, is assigned an objective. The enemy dispositions (or his information of them) are such that he cannot find a flank to envelop. Forced to penetrate, he studies all the pertinent factors, particularly the terrain. Let us say he picks a stretch of low ground leading toward his objective, which indicates to him a weakness (at least a terrain weakness) in the enemy defenses.

At this point he might grab the proverbial broad pencil and draw an arrow through this low ground toward his objective. Perhaps some staff officer (the type who writes plans but has never witnessed their execution) would picture this arrow as representing a Balaclava-like charge up a river valley. However, to our division commander who knows his doctrine the arrow represents the "center of gravity" of an attack within the corridor. He anticipates that:

Battalions of his assault regiment(s) will seize initial and successive objectives on the two ridges which form the corridor, thereby removing observed fire from the low ground between. (This, on a larger scale, is what the platoons of Fox Company did on the "U" in Major Averill's article.)

Reserve battalions and regiment(s), artillery, command and logistical installations will displace forward in the protected valley, facilitating the continued advance of the division. (Just like Easy Company marched up the draw.)

Were no corridor available to our commander, another "possibility mentioned in the book" would be a single ridge line leading generally toward the objective. On this ridge concealment rather than cover would have to provide the protection from enemy fire for displacing troops and installations. Obviously then for a zone of attack a single ridge (though preferable to cross compartments) is less desirable than the crests, interior slopes, and valley which constitute a corridor.

IF the misconception of what a corridor *is* detracts from otherwise sound tactics, it must be corrected. Aside from the "broad arrow concept" previously mentioned, there is another possible source of misinterpretation. It is the small-unit leader's almost unconscious confusion of technique with tactical principles. He reasons thus: "to attack the enemy position I take my platoon by the most concealed and protected route to my objective. The best concealment is frequently in the vegetation along a stream. In such cases I attack up a draw; therefore, my division commander must

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attack up a valley." He doesn't realize that it is his platoon and many like it fighting up the draws (or hedgerows, or rocky noses, or alleys) which take the essential high ground. They *are* the division commander's attack. They take the ridges that make the valley safe for the use of those elements of the division which are not attacking but whose freedom of movement and operation is necessary to a continuation of the attack.

An understanding of what a corridor is and how to use it is basic to any leader of ground combat units. If a word confuses rather than helps, it should be modified or explained to insure clarity.

In military writing, words should be avoided which require exactitude in definition or have highly specialized meanings.

In service schools, words should be used in close conjunction with the ideas they represent, e.g., "Corridor A-B" is less descriptive than "Ridge A-Ridge B Corridor."

In the COMBAT FORCES JOURNAL, if a contributor comes up with a faulty premise, edit it, or caution the reader by a footnote, as in this case SR 320-5-1 definitions of "corridor," and "compartment of terrain."

ACTUALLY the error which Major Averill exposed was not failure properly to employ a corridor in penetrating an enemy battle position. It was failure properly to protect flanks in a movement against deceivingly light opposition. In a movement to contact, or a pursuit, obviously the commander pushes his forces forward rapidly along the most trafficable routes which are usually in the valleys. It is basic that in so doing he runs a grave risk if he does not simultaneously provide flank security on the adjacent high ground.

Criticism of doctrine is essential to a progressive, effective army. However, slanted misquotations undermine and confuse sound military thought. Our schools try to reveal the tactical principles to the student, but after all, experience is the best teacher. Usually when the individual lesson is finally learned in combat, the "discovery" carries a subconscious thought: "Seems like I heard that somewhere before!"

This started out to be a mild letter of reproach to the COMBAT FORCES JOURNAL for allowing a minor distortion to mar an otherwise valuable article. It has developed into a treatise. I hope it has value.

I am also mailing copies of this to Major Averill and the Tactical Department of The Infantry School.

MEET THE FA OBSERVAT

Major H. P. Ran

EVERYBODY knows about the shooting artillery. The doughboys, tankers, engineers—they all know the fire support that artillery battalions can give them. But few, even among artillerymen, know just what the Field Artillery Observation Battalion is, what it really does, and what effect its missions have on the artillery units of the corps.

An observation battalion commander returned from Korea remarked, "The division artillery and corps artillery S3s were not familiar with the capabilities of my battalion."

An excellent pictorial record of observation activities in Korea is available in Staff Film Report No. 174, released in December 1951. Official reports, personal interviews, and other first-hand sources provide pertinent information on activities of observation units in the Korean War. The following remarks throw light on some of these activities:

"As many as 117 sound locations and 322 flash locations were reported by elements of one observation battalion during one month. Flash registered and adjusted friendly artillery . . . Flash OPs were usually located by triangulation . . . Personnel of the flash topo section were used as relief personnel for the operations section and also up on the OPs . . . We did get some after-action inspections for accuracy of our locations and it generally proved out the locations were all right . . . Sound and flash locations were habitually tied in to firing battalions.

"The radar antenna and generator were a guide for infiltrators [because of noise] . . . Radar should definitely be on the observation battalion T/O&E. It would be a tremendous asset to the battalion, both for counterbattery and countermortar work.

"The frequency of meteorological electronic release was upped from three to six per day . . . We supplemented the electronic messages with visual messages when we could.

"Headquarters battery was working up and getting survey control along the whole front to the divisions . . . Sun shots were used most of the time. We used the existing trig points when we could verify them . . . The SIC was near corps artillery headquarters . . . I did a reconnaissance in thirty minutes by helicopter that would otherwise have taken me an entire day.

"We found out what the divisions' problems were and tried to be one step ahead of them so we could offer suggestions as to what we could do. Otherwise they will certainly give you orders and they might not be what you are best fitted to do . . . I think one observation battalion per corps is a good compromise. A battalion can cover very well the present corps front (in Korea), leaving a few gaps in the least likely spots perhaps."

In combat, we can get our money's worth out of the observation battalion only if all soldiers know what its mission is and what it can do.

There is one observation battalion organic to each corps artillery. Except for the headquarters and headquarters battery of corps artillery, it is the only unit habitually assigned to the corps artillery. All other units, such as the many artillery battalions of different calibers, both FA and AA, are normally attached only to the corps, and are subject to transfer at any time.

These battalions have a headquarters and headquarters battery, three observation batteries, and a medical detachment.

Their missions are to pinpoint the enemy's artillery, register and adjust our own, collect and put out combat information, calibrate our own artillery, coordinate artillery survey within the corps, and furnish our own units with meteorological data.

Locating the enemy's artillery is by far the most important mission from the corps point of view, for in combat, this knowledge is of great importance to the corps commander. Particularly when he plans an attack, neutralization of the enemy's guns is essential. Then a "silent" counterbattery policy is often ordered. Hostile positions are accurately located, but are not fired upon until just before the attack. And then the corps artillery goes to work on its counterparts across the line located largely by the observation battalion.

The observation battalion locates the enemy's guns by sound, flash, and radar ranging. At the present stage of development, radar ranging is quite limited in locating flat-trajectory weapons, but

it is most reliable and accurate in locating mortars and other high-trajectory weapons. Sound and flash are excellent means for locating any type of weapon, including high-velocity, flat-trajectory guns.

Sound Ranging

LOCATION by sound ranging is done by finding the ground position of whatever makes the sound. The time the sound waves arrive is precisely determined by electronic equipment at accurately surveyed stations. The microphones there have filters which prevent high-frequency sounds, such as rifle and machine-gun fire, from reaching the microphone. And to shield the microphones from the effects of wind and other terrestrial disturbances, they are suspended within canvas covers hanging below the level of the ground.

As the sound waves strike the microphone, electrical impulses are sent by wire to the sound central where the waves are recorded. The time the sound arrived at each individual microphone is carefully figured. By measuring and plotting on the sound chart the time intervals between several microphone stations, the point of origin of the sound waves is found. Accuracy depends upon the size of the "polygon of error" of the interdicting rays. The coordinates thus figured are sent to the next higher echelon with a statement whether the accuracy of the location is within 50, 100, or still more yards. This helps in evaluating the information along with other location reports from photo interpretation teams, light observation airplanes, terrestrial observers, and shell reports. An accurate set of coordinates can be determined when several location reports pointing to the same weapon, have come in to the corps artillery counter-battery section.

Normally four to six microphones are installed to form the sound base. These are spaced at intervals of 700 to 2,000 or more yards, depending on the terrain. No personnel are required to man the microphone stations once they sound central. One man is required at the sound outpost. He presses a button to activate all the sound equipment as soon as he hears the noise of a hostile weapon. There may be more than one outpost for a base, depending on the width of the front that has to be covered.

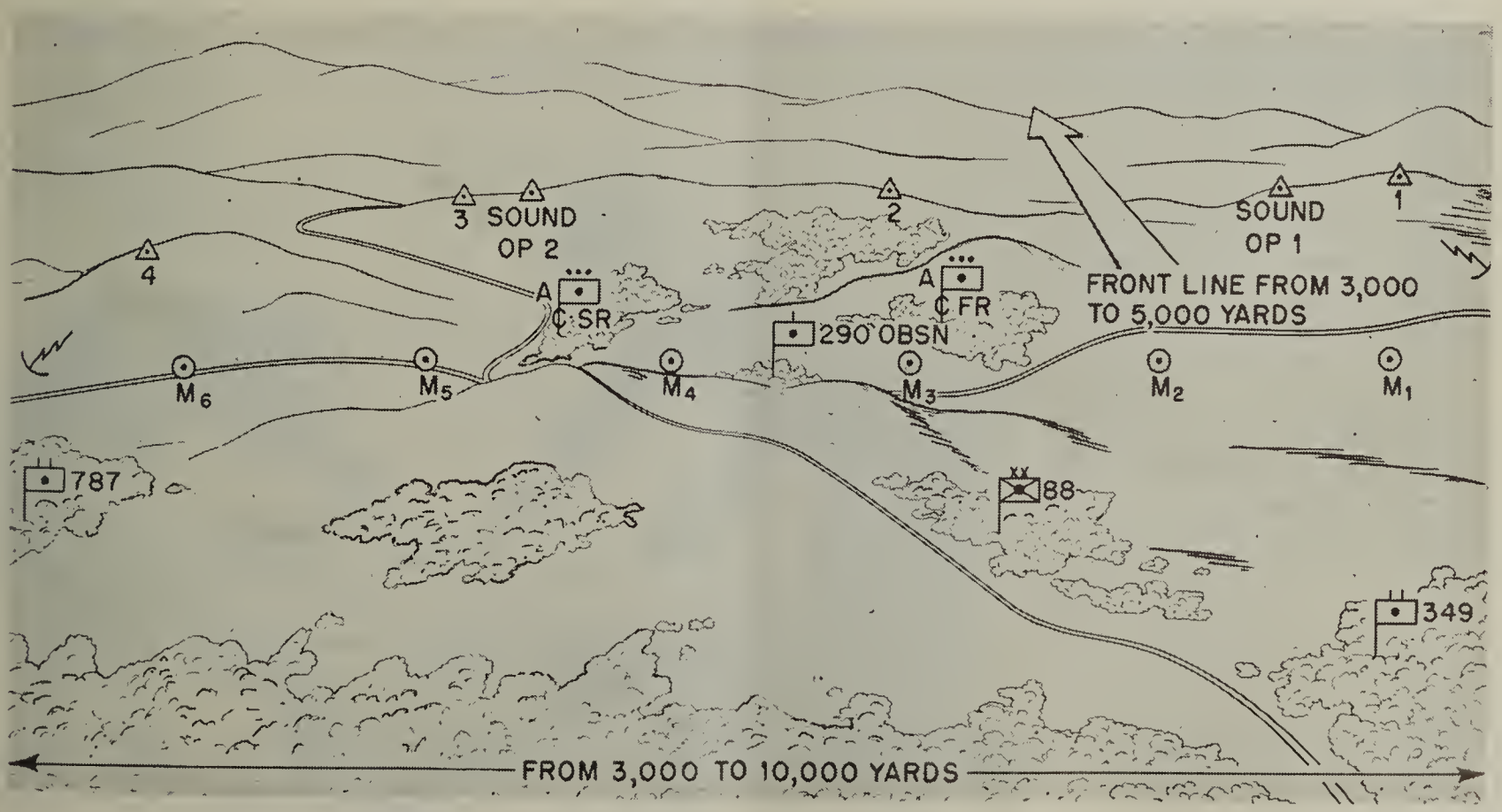
A minimum crew of six men is needed to operate the sound central. All locations obtained there are immediately reported to the observation battery CP where they are evaluated and sent to the battalion CP, and thence to corps artillery.

During the last war many sound microphones were dug up with great care and trepidation by friendly troops who thought they were mines. The way they are buried in the ground can easily fool anyone into thus mistaking them. But by marking microphones with an identifying tag this can be avoided.

The sound equipment of an observation battery can perform adjustment and registration of our own artillery. Strong winds, very bad terrain where it is hard to emplace microphones, heavy artillery fire by the enemy that clutters up the sound recordings with several sounds at the same time, and extremely long ranges to sources of sounds weakening the sound and distorting the wave beyond correctible limits—these things all limit to some extent the operation of sound equipment. The maximum distance at which artillery was located by sound in World War II was about 33,000 yards. The normal maximum effective range runs about 20,000 yards.

Flash Ranging

FLASH ranging operates by sight observation of the flash of a weapon as it fires. This is done from several observation posts. Usually, two to four OPs are set up, with the larger number most desirable. OPs must be surveyed accurately. On each of them an operator mans instruments and searches the target area. As soon as he sees a flash he takes horizontal and vertical readings to it and reports the data to the flash ranging central. There observations made on the same flash from several OPs are graphically plotted in much the same manner as in sound ranging. Again the polygon



The CP of an observation battery in support of a division artillery is easily accessible to the division artillery and the platoon command posts. The sound outposts are located on high ground, well to the front. The six microphones are strung along the entire front. The two radar sets are emplaced well to the flank to obtain side view of the hostile projectiles; they are indicated by lightning bolt symbols.

of error determines how accurately the gun has been spotted.

Flash ranging can do registration of our own artillery either by center-of-impact or high-burst methods. It can adjust fire and do comparative calibration. Flash ranging is the most important primary means the observation battalion has for furnishing general battlefield information, because its observation instruments are located well up front and on high ground. Poor visibility limits flash operations; flat terrain or jungle where OPs are simply not to be found completely frustrates them.

The best accuracy possible in observing a single flash is about five meters. When a whole enemy battery fires, the location error may run as high as 100 meters.

Radar Ranging

RADAR ranging locates weapons by observing projectiles electronically during their flight. The radar set sends out a pulse of radio energy in the direction of the sector the radar is directed to search. When any projectile passes through this beam of energy, part of the energy "bounces" off the projectile back toward the radar set. There this weak signal is amplified greatly and thus made visible on various scopes.

But the radar can do more than just "see" the projectile. It can be made to follow the shell automatically during its flight. An automatic plotter graphically records the data determined by the radar set—range, height, and azimuth (direction) from the radar set to the projectile. With these three elements available for a part of the trajectory, the rest of it can be reconstructed, and thus the ground location of the origin of the shell can be determined.

Radar accuracy depends on how steep the trajectory is and also on how much of its flight is observed. The steeper the shell's path and the greater the fraction of its flight observed, the better the results. Thus with a mortar the expected accuracy runs from 30 to 50 yards. With an artillery weapon, the location may be in error by several hundred yards. But future developments in radar equipment are expected to improve this considerably.

The best "view" a radar can obtain of a hostile shell is from the side because from this angle the largest reflecting surface of the shell is encountered by the radio pulses. Therefore sets are often emplaced to the flank of the corps zone they are covering. The terrain should also be ground with a slight crest to the front to prevent echoes from terrain features from obscuring the scopes on the radar set. But a crest that is too high will block the electronic line of sight from the radar set to the projectile in flight.

Radar functions without difficulty in darkness, fog, and light rain; but snow, sleet and heavy rain puts it out of business. The excessive size and weight of present equipment and its limited capability of locating artillery make radar less effective in the sound-flash-radar counterbattery team than the other two means. However, radar can't be fooled and both sound and flash ranging can. The enemy can set off charges and use other fuzes to simulate targets. When radar observes an object in flight and the automatic plotter records the information, there is no possibility of mistaking the object for a shell if it is something else. The characteristics of the plot of any projectile trajectory are unmistakable.

Radar can do registration of our own artillery by high-burst method with excellent accuracy. Present equipment reads elevation and azimuth to one mil and range to twenty yards, so radar can do long-range registrations particularly well.

Radar can adjust friendly artillery on targets previously located by radar. And it can detect movement on the battlefield. To carry this last mission out, the radar set has to be emplaced on an exposed location so that a line of sight to the ground is obtained. This makes the set highly vulnerable, so this mission is usually carried out by night. It was used with great success during World War II. (See *Field Artillery Journal,* August 1946, "Employment of Radar by XV Corps Artillery," by Brigadier General E. S. Ott.)

Meteorological Section

THE three agencies for locating weapons so far discussed are found in the lettered batteries. The headquarters battery contains the meteorological (met) section and the topographical platoon.

The main job of the met section is to furnish met messages to artillery units and so increase the accuracy of their fires. Weather, and wind in particular, has an obvious effect on the travel of sound waves. Hence another met section mission is to provide weather data to the sound platoons in the observation batteries. There this information is used to apply corrections to the recorded data. This section also exchanges weather information with Air Weather Service units.

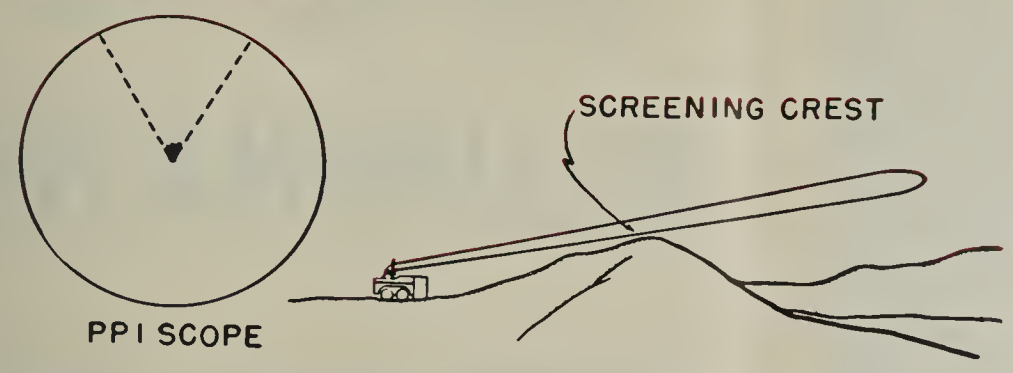
The met section does no forecasting; it only determines existing conditions at all altitudes traveled by projectiles. Ballistical information contained in the messages includes wind speed and direction, air temperature, and density.

The met section has an electronic radio direction finder in contrast to the visual met equipment of the division artillery section. In operation, weather data are continuously transmitted by a radiosonde attached to a balloon in flight. The radio direction finder furnishes wind information by measuring azimuth and elevation to the balloon at specific time intervals. It also acts as an antenna for the receptor, which records in chart form other weather information



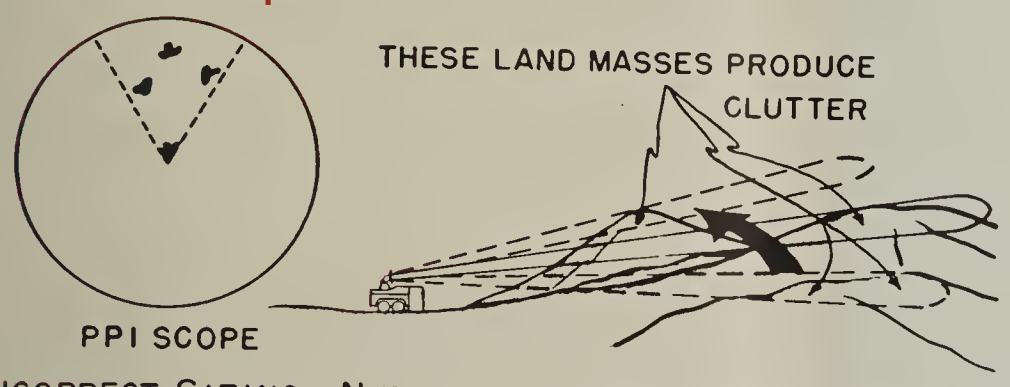
The flash ranging plotting board is located in the flash central. Information sent in by the observation posts is immediately plotted for a location of the hostile installation.

CORRECT SITING



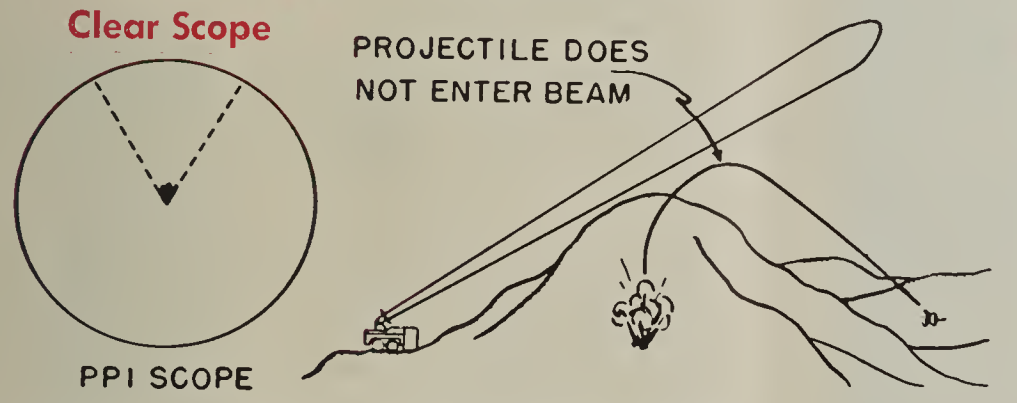
CORRECT SITING - SCREENING CREST MINIMIZES CLUTTER IN SECTOR OF SEARCH

INCORRECT SITING
Cluttered Scope



INCORRECT SITING - NUMEROUS FIXED ECHOES IN THE DESIRED SECTOR

INCORRECT SITING
Clear Scope



INCORRECT SITING - HIGH SCREENING CREST

Correct and incorrect locations for a radar set charged with location of hostile weapons.

supplied by the radiosonde. Complex computations are made to transform the electronically received data into a usable metro message.

The messages go at scheduled times to the artillery with the corps. Whenever a special message is needed, any unit can arrange beforehand to get it. Heavy artillery battalions depend on metro messages for their firing accuracy.

Topographical Platoon

THE observation battalion is charged with establishing survey control for all artillery with the corps. The battalion commander himself is designated the corps artillery survey officer. The T/O provides a major as battalion survey officer. The topographical agencies of the battalion collect and disseminate survey information throughout the corps artillery area and perform survey for the battalion's own sound, flash and radar activities.

This work is done by the survey parties in the topographical platoon of headquarters battery and by the topo sections in the sound and flash platoons of the lettered batteries. There are 16 survey parties in the battalion, 4 in headquarters battery and 4 in each observation battery. The lettered battery parties normally do the necessary work for elements of their own batteries. The four parties in headquarters battery usually accomplish survey for units other than those of the battalion. However, the work can be broken down in any way that will best accomplish the overall survey mission.

Planning for survey operations can save many hours. The battalion does its surveys by traverse, triangulation, and three- and two-point resection. When no established ground control is available to locate the battalion equipment accurately, surveys are usually started with astronomical observations instead. These are also used to check the progress of a survey party.

The Survey Information Center (SIC), one section of the topo platoon, is usually set up near the corps artillery fire direction center. It acts as the central agency within the area for planning, coordinating, computing and checking survey operations. The SIC serves as the record central and clearing house for survey by all artillery units. Newly arrived units come here to get information that will tie their own surveys into the corps survey, and to turn in their survey data for recording.

Tactical Employment

WHENEVER possible the observation battalion commander keeps centralized control over his unit. The width of the front and the number of divisions and task forces in the corps, as well as their missions, may sometimes make decentralized control necessary. In that case batteries are attached to units subordinate to the corps.

Whether under centralized or decentralized control, the unit displaces by echelons. When the battalion operates as a whole, it moves by battery. When a battery is operating by itself, elements of sound, flash, and radar displace, while other elements continue observation. Batteries are self-sustaining, except that meteorological information comes only from the headquarters battery.

In general, the T/O&Es of the observation battalion and battery have undergone but two major changes since World War II. The first increased the lettered batteries from two to three; the second added the radar platoon in each battery and also the battalion radar officer.

NEW equipment added to the observation battalion since the close of World War II includes a survey beacon, a metascope, miscellaneous new vehicular and communication equipment, and all the items of the radar platoon.

The value of the field artillery observation battalion in assisting the firing artillery units by survey and meteorological data, and by locating hostile artillery is inestimable. Little known as its activities are, lack of such a unit in the corps would now be sorely felt by all combat troops.

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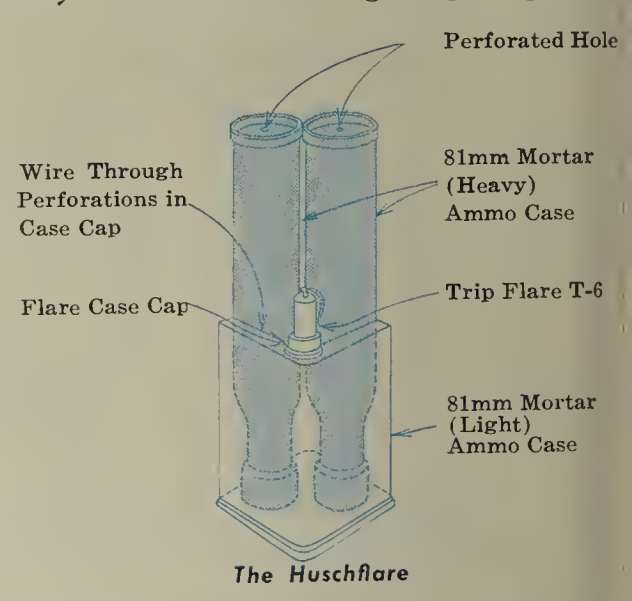
The Huschflare sends forth a bright clear flame ten feet into the air and lights the area within a radius of fifty feet.

IMPROVISED ILLUMINATION

Private First Class Cleve Cunningham

Here's an improvised flare put together by a lieutenant in the 35th Infantry which uses material that largely comes from salvage piles

NIGHT illumination is a must in Korea. Because of steep slopes, shrubby underbrush, ditches and rice paddies, every rifle squad should be able to illuminate the sector in front of it. The enemy, well trained in night fighting and infiltration tactics, makes every possible use of the terrain and the protection it gives from standard flares.



The Huschflare

In the 25th Division, an improvised flare has been developed and adopted for wide use. Easily constructed from materials available in every rifle company, this flare has been used to supplement issue-type and also the indirect and direct searchlight illumination.

Named the Huschflare, after its inventor, Lieutenant Charles E. Husch, formerly of the 35th Infantry Regiment, it can be regulated to burn from one-half to three hours, illuminating a radius of fifty yards. The Huschflare requires a minimum of maintenance—refilling it when necessary—and can be tripped either by pull wires, or by the enemy in the accepted trip wire method.

Why go to all the trouble of making a flare when many varied types of flares are issued? First of all, issue-type flares never seem to be in sufficient supply. Also, in Korea, the issue-type flares prove impractical in many situations. They cast shadows which conceal the enemy on the rugged terrain and often fail to illuminate a specific area.

Materials needed to construct the Huschflare, most of them salvage items, are communication wire, two 81mm shell containers (heavy), with tops; one metal 81mm shell container (light); and two T-6 trip flares.

PRIVATE FIRST CLASS CLEVE CUNNINGHAM is a member of the 25th Infantry Division in Korea.

Preparation of these parts for assembly is easy and can be done quickly. Remove the partition from the light shell container and drill several holes in its sides. Since these holes will limit the amount of gasoline the container will hold *(see cut, at right)*, the holes should be drilled at a height determined by the length of time you want the flare to burn. You have to experiment to determine the variations in burning time.

Begin assembly by filling the two heavy containers with gasoline. Place the tops and tighten. Then put the heavy containers, with caps down, in the opposite corners of the light shell container. Punch or drill two small holes in the caps of the trip flares' containers and run the communication wire through them. Wire the tops of the trip flares in the two valleys formed by the two heavy containers *(see cut below)*. Set T-6 trip flares in tops and wire them securely to heavy containers. The trip flares must be *secure* so the action of tripping them won't free them from the Huschflare. Attach a trip or pull wire, harness fashion, to both flare pins. Fill the light container with gasoline to height of holes drilled in sides. Then punch or drill a hole in the bottoms, now tops, of the two heavy containers. String the wire either to a position or conceal it and the flare is ready for use.

When the T-6 flares are activated, either by pulling or tripping the wire, their flames ignite the gasoline in the light container. As this flame burns, it heats the gasoline in the two heavy containers, creating considerable pressure. The pressure and heat force the gasoline to spout from the holes in the tops of the two containers in vapor form *(see cut, opposite page)*. The vapor will ignite immediately. A spouting tongue of flame will shoot eight to ten feet in the air illuminating the area with clear light within a radius of fifty feet.

UNDER certain battle conditions, it isn't too wise to have a sector lit up for too long a time. If it is more practical to have a shorter burning flare, the burning time can be shortened during assembly by partially filling each heavy container with a small log. The log takes up air and fuel space. The logs should be notched at the ends before insertion into the containers to keep them from blocking the holes in the ends of the containers *(see cut, lower right)*. Less heat is required to vaporize the gasoline in the heavy containers, therefore less gasoline, and lower placed holes, are needed in the light container.



Here's what you need to assemble a Huschflare. From left to right: T6 trip flares with tops; communication wire; two heavy 81mm shell containers with tops; one light 81mm shell container. Note the holes drilled in the light shell container.

The job of maintaining the Huschflare is simple. Check the flare twice weekly and replace the gasoline that has evaporated or collected water. Make sure the wires are secure.

The Huschflare is emplaced by the needs of the tactical situation and the terrain. It is advisable to place it far enough away from friendly lines so it won't be dangerous. Also put where it will silhouette the enemy.

The Huschflare assembled and ready for use. Note how the trip flare is heavily wired to the 81mm shell containers.



This shows how logs are prepared to shorten the burning time of the Huschflare. The ends of the logs are notched to keep open the holes in the ends of the container.



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THE BATTLE OF THE BULGE AS A C

Battlefield Intellige

Hanson W. Baldwin

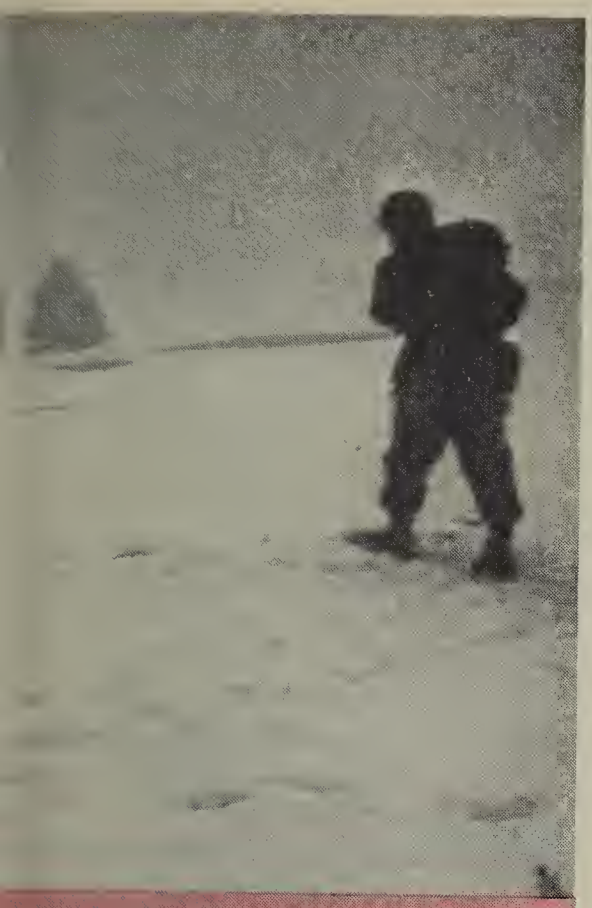
INTELLIGENCE deficiencies and an astigmatic concentration upon our own plans with an almost contemptuous indifference for the enemy's, set the stage in December, 1944 for the German successes in the Battle of the Bulge —a case history in the "dos and don'ts" of intelligence.

HANSON W. BALDWIN, Military Editor of *The New York Times*, is, so far as the Editors are aware, the most knowing, thorough and hard-working military commentator engaged in that arduous and dangerous craft. Mr. Baldwin's interest in the Battle of the Bulge goes back to those dark December days of 1944 when it was being waged. An earlier article on one phase of it, "Great Decision," appeared in the May 1947, *Infantry Journal*. In that article Mr. Baldwin told the story of General J. Lawton Collins's Christmas Eve decision to let Combat Command B of the 2d Armored Division attack, despite the gravity of the situation and the lack of a firm directive from higher headquarters to attack.

The Battle of the Bulge was the last dramatic effort by the Germans to avèrt defeat in Western Europe. It was, in net result, an unsuccessful effort (which may—or may not—have lengthened the war slightly), but it won dangerous initial successes for the enemy and it cost the United States heavily in casualties and prestige.

In December, 1944, the thundering surge of the Allied armies across France had bogged down on the frontiers of Germany; the bloody, dogged battle of attrition in Hürtgen Forest—one of the hardest (and most neglected) battles in which Americans have ever fought—and slow, inching progress through the Westwall had succeeded the sweeping advances and heady triumphs of the summer. The high elation of victory had been followed by the reaction of weariness, and the gradual realization that the war was not over; another winter of struggle faced us. But from the Vosges to the sea, along 500 miles of front, almost seventy Allied divisions were standing at the portals of a Germany bled white. Devers' 6th Army Group held the eastern flank; Bradley's 12th Army Group—the largest and most powerful of the groups, comprising the Third, First and Ninth American Armies—fought from the Saar to the Roer, and Montgomery's Englishmen and Canadians, with some American units, pressed toward the Rhine in the north.

The U. S. First Army, Lieutenant General Courtney H. Hodges commanding, held about 165 miles of front from Aachen to Luxembourg, with Patton's Third Army on its southern flank and Simpson's Ninth Army to the north. Three corps were in line under Hodges in December, 1944: the VII Corps in the north, pushing toward the Roer; the V in the center, driving toward the dams that controlled the level of the Roer, and the VIII in the south. The VIII Corps was spread thin—deliberately. Four divisions held about eighty-eight



E HISTORY

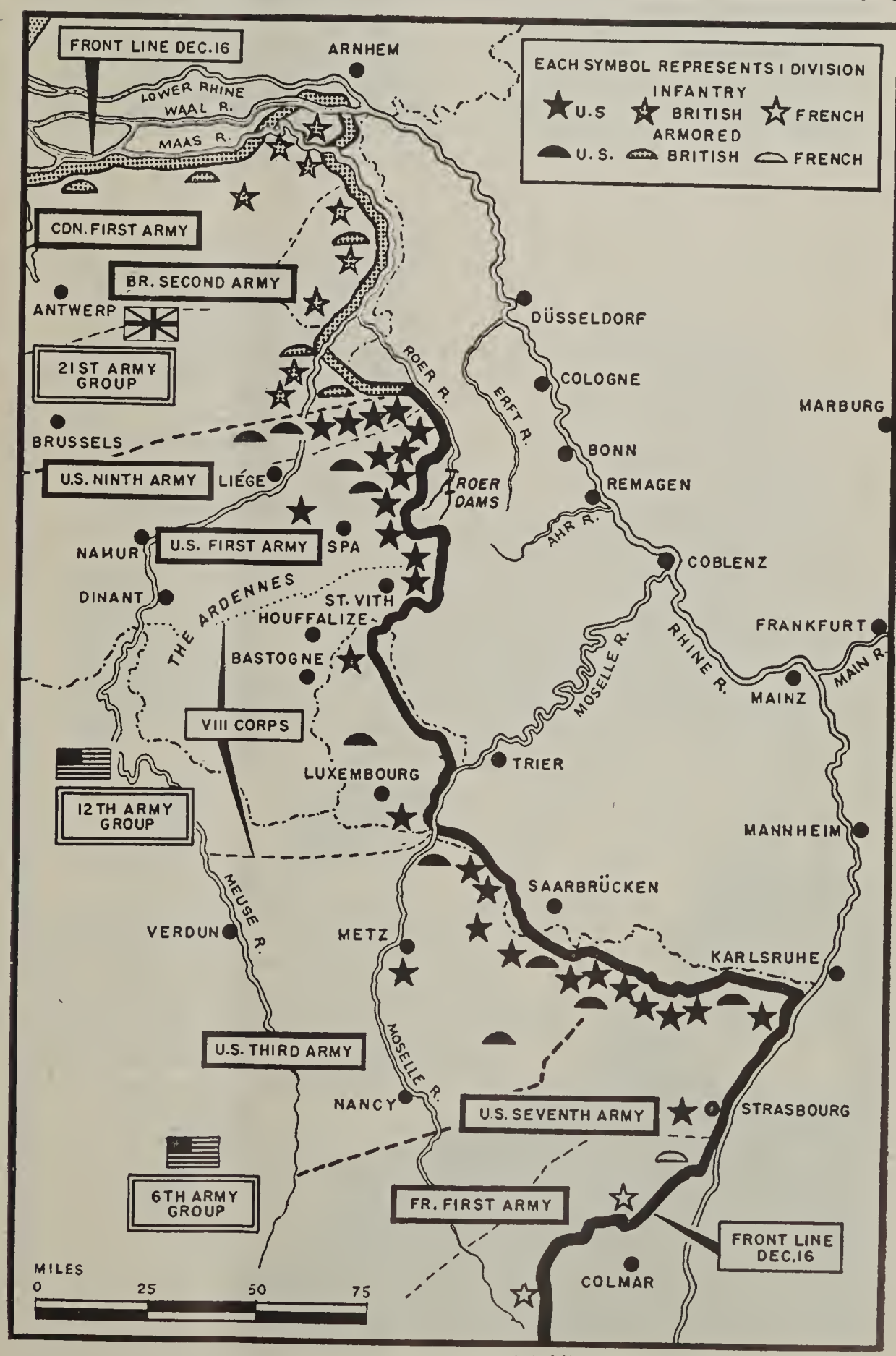
D

. . . a shocking deficiency that impeded all constructive planning existed in the field of Intelligence . . . The stepchild position of G2 in our General Staff system was emphasized in many ways.—GENERAL EISENHOWER in "Crusade in Europe."

miles of front in the quiet Ardennes sector. The bulk of the U. S. strength had been concentrated to the north and south of the Ardennes to support the main efforts then planned, and the Ardennes sector, with its difficult terrain and limited road network, was considered a "quiet rest" area and was held by divisions, blooded and weary from the slugging match in Hürtgen Forest, and by new outfits. It was a weakly held front, and was so recognized; it was a risk, but the risk was slight. American troops were frustrated and weary but offensive-minded. The enemy couldn't attack; he was licked—in time.

CAPTURED German documents seemed to reflect the stress and strain of the enemy. In late November, one German colonel in the 18th Volksgrenadier Division went into a ranting fury—in an order to his men—about the desertion and surrender of six of his soldiers:

Allied positions in Western Europe on the eve of the German counteroffensive



From *A Soldier's Story.* By General Omar Bradley. Copyright, 1951, Henry Holt & Co., Inc.

"Traitors from our ranks have deserted to the enemy," he proclaimed. ". . . These bastards have given away important military secrets . . . Deceitful Jewish mud slingers taunt you with their pamphlets and try to entice you into becoming bastards also. Let them spew their poison! We stand watch over Germany's frontier. Death and destruction to all enemies who tread on German soil. As for the contemptible traitors who have forgotten their honor, rest assured the division will see to it that they never see home and loved ones again. Their families will have to atone for their treason. The destiny of a people has never depended on traitors and bastards. The true German soldier was and is the best in the world. Unwavering behind him is the Fatherland.

"And at the end is our Victory. Long Live Germany! Heil der Führer!"

This was a clear note of frenetic desperation, of a nation at bay. And our intelligence had reported that "stomach battalions" (men, with stomach ulcers and other ills, combed from hospitals and rear areas), prison outfits, the aged and unfit, as well as the new Volksgrenadier divisions, were facing us in line.

Yet we weighed too lightly the fanaticism of the Nazis.

And we reckoned without Hitler and the remarkable capacity of the disciplined Germans for reorganization and last-ditch effort.

Victory through Surprise

THE Bulge offensive was a logical outgrowth of the Teutonic mind. The German is never defensive-minded, least of all under Hitler. He had much to gain—little to lose—by a surprise blow. Clausewitz had written that "he who is hard pressed will regard the greatest daring as the greatest wisdom." The offensive was in character—the German character and Hitler's character; perhaps the only anachronistic element was that Hitler who had, in the past, shown a grasp of political, as well as military, strategy, chose to deliver the offensive against the Western Allies instead of against the Russians. Hitler had considered an offensive in the East but had rejected it; the order announcing the impending blow in the Ardennes, issued on 6 November to the Chiefs of Staff of the Seventh German Army, the Sixth Panzer Army and the Fifth Panzer Army by headquarters of Army Group B, stated that the forces then earmarked for the operation—twelve Panzer and Panzergrenadier divisions, two airborne divisions and twenty Volksgrenadier divisions—"the last that Germany is able to collect"—were too small to offer any prospect "of a decisive success on the vast Eastern Front." And in the West the Allies were on German soil and hammering at the gateways to the Reich; in the East, in December, 1944 the Russians were still on the Vistula, far from the heart of the Reich.

The plans for the German offensive were based on surprise, as had been the first major German offensive of World War II against the French. Hitler and the Germans knew the Ardennes was weakly held; so they determined to exploit our weakness there by surprise. The enemy's cover plans were therefore a basic part—indeed, a primary part—of the whole operation. Without secrecy there could be no surprise; without surprise there would certainly be failure; with surprise there would be—Hitler thought (though Von Rundstedt and most of the German generals disagreed)—a very good chance of success.

"The most important factor," the coded order of 6 November, issued at Army Group B headquarters said, "will be first—SURPRISE, and next—SPEED! . . ."

The German preparations were, therefore, masked by perhaps the greatest security measures known to the history of war. The first—and most important of these measures—was the choice of time and place:

"The success of this operation," Army Group B declared, "will depend fundamentally upon the degree of surprise achieved; therefore the time and place for this offensive will be such as to completely deceive the enemy. Considering the situation, the time and the weather, the enemy will be least likely to expect such an attack shortly before Christmas, from the Eifel (the Ardennes) and against a front only thinly held by him. The objective of the offensive will be Antwerp in order to rob the Allies of this very important supply point and to drive a wedge between the British and American forces. After achieving the objective we will annihilate the British and American forces thus surrounded. . . ."

The German plan for the winter counteroffensive



From *A Soldier's Story*. By General Omar Bradley. Copyright, 1951, Henry Holt & Co., Inc.

There was nothing modest about this bold plan and the Germans proceeded to mask their preparations with typical thoroughness. Until the last moment only a few high officers were briefed in the great secret. Any civilians of doubtful heritage were evacuated from the front-line areas, and commanders of units earmarked for the attack issued strict orders to their men—violations punishable by death—against fraternization with German civilians in the area. Armies, corps and divisions changed code names (the Seventh Army, prophetically enough, to "Winter Storm"). The Sixth Army, the ace-in-the-hole, for which all Allied units had been watching, was openly sited in the periphery around Cologne to simulate its readiness to defend against an Allied breakthrough across the Roer.

(After the war when General Sepp Dietrich, commanding the Sixth Panzer Army, was interrogated, he declared that his army remained around Cologne, astride the Rhine, until definite orders for the offensive were received by him on 12 December. Until two or three days before the offensive, the Sixth Panzer Army did not commence to move into attack position—a move shielded by utmost secrecy, and Dietrich himself did not know definitely the Ardennes offensive was ordered, or the date when it was to commence, until four days before jump-off.)[1]

The organization of the Fifth Panzer Army was masked by keeping many of its divisions engaged in active operations at the front until mid-November. Corps and army boundaries were shifted gradually and imperceptibly. Units brought from the east or elsewhere or newly organized were concealed under new names. Von Manteuffel's Fifth Panzer Army was called, for instance, Panzergruppe Manteuffel. Radio deception for some units was practiced extensively, and the Sixth Panzer Army—the key unit upon which the success of the offensive depended—observed complete radio silence for at least three weeks before the start of the operation. Small elements of divisions were left in line to permit continued identification by the Allies, long after the bulk of the divisions had been removed. (The 2d SS Panzer Division and the 12th SS Panzer Division were among the units that used this deception.) Revealing movements were prohibited by halting all motor movement within five kilometers of the Ardennes front. Infantry divisions, earmarked for the assault, did not move into assembly areas until a few days before the attack; during the moves to the assembly area—all at night—unit emblems and vehicular markings were covered, and in night movements light bulbs in vehicles were removed. Along much of the First U.S. Army front, including the quiet VIII Corps sector, deceptive use was made of sound trucks. Sound of tracked vehicles was simulated by loud speaker each night for a month before the offensive, so that when the actual concentrations started, a few nights before the jump-off, the actual noise of tanks and half-tracks was like the boy crying, "Wolf, wolf!"

[1]This *ex post facto* testimony must be supplemented by somewhat contradictory facts. X-Day was first set by the Germans for 12 December, and was postponed because the desired period of bad weather was not predicted. On 11-12 December, the principal commanders of divisions, corps and armies which were to participate in the attack, were harangued by Hitler at the headquarters of "High Command West" at Ziegenberg.

THE ENEMY COMMANDERS



VON RUNDSTEDT
German Forces, West



VON MANTEUFFEL
Fifth Panzer Army



MODEL
Army Group B



DIETRICH
Sixth Panzer Army

Signs and Portents

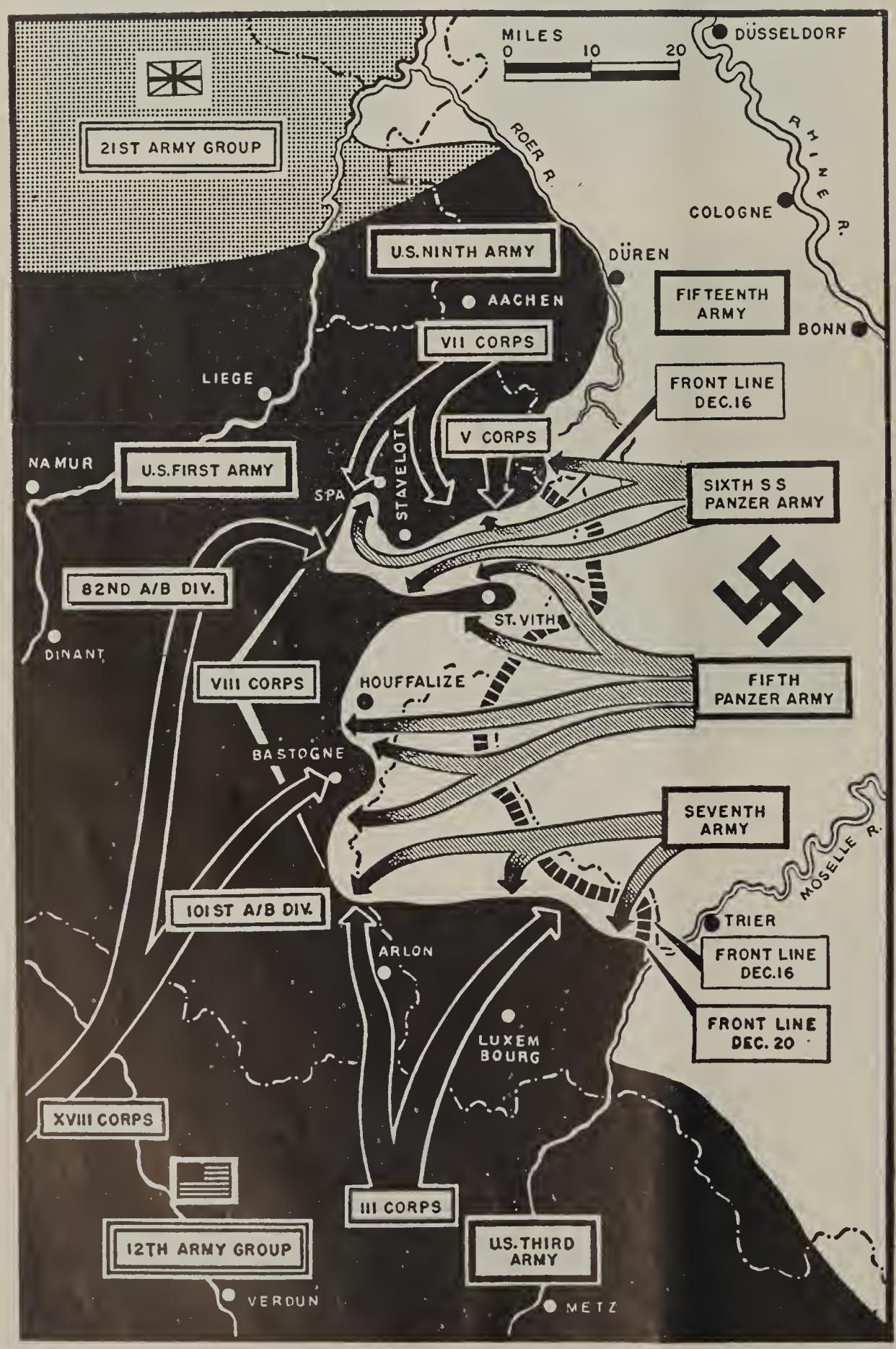
DESPITE all these precautions, there were signs. The Germans could not possibly keep secret, for instance, the existence of the Sixth Panzer Army, which they had started to form early in the fall. The Allies had long known of its existence and intelligence reports for weeks before the offensive had emphasized it and had discussed its potential.

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The risk in the Ardennes was known, faced and discussed, but as Colonel Wilbur E. Showalter demonstrated in *Military Review* (May 1952, "What is Calculated Risk?"), it was not calculated as carefully as it might have been. The Germans, like the Americans, had used the Ardennes front to "break in" new divisions and to rest weary ones. The Allies knew that German strength in the sector had been beefed up from three to more than six divisions before the offensive.

"The Ardennes was considered a danger spot by General Eisenhower and General Bradley, but not the only one, inasmuch as the Alsace sector was also critical," wrote Colonel James O. Curtis, Jr., who in December 1944 was Deputy to the Chief of the Operational Intelligence Subdivision at SHAEF and Intelligence member of the SHAEF Planning Staff, in a letter to this writer of 28 June 1946. ". . . in fact from our point of view, the Alsace sector was a much more dangerous one, everything considered, than the Ardennes, for you can imagine what would have been the effect of a German slice through and seizure of Metz upon the French and our own 6th Army Group. The fact that the Germans, in desperation, might employ their last remaining strategic reserves in a gamble to achieve some tactical or strategic advantage was also, I believe, fully appreciated both by General Eisenhower and by General Bradley in a conference at SHAEF which took place long before December 16th" (the start of the German offensive).

Fast Allied reaction upset the German timetable



From *A Soldier's Story*. By General Omar Bradley. Copyright, 1951, Henry Holt & Co., Inc.

Brigadier General Edwin L. Sibert, then G2 of the 12th Army Group (letter of 2 January, 1947), recalls that "perhaps two and one-half weeks prior to 16 December, I called General Bradley's attention to the German capability of an attack in the Ardennes. After my return from a visit to the Sixth Group, I noted for General Bradley, in connection with the above capability, that two German assault corps had been withdrawn from the line. However, I want to emphasize that I only noted the German capability of an attack through the lightly held Ardennes and at no time did I specifically state that this capability would be—to use our own peculiar intelligence language—'implemented.'"

"It is also significant [Colonel Curtis notes], that General Patton had appreciated the danger of a German counter-offensive in the Ardennes, as well as one through Alsace, and had made tentative plans for the Third U.S. Army in the event of such a contingency."

". . . we always considered a German attack here [in the Ardennes] a capability," wrote (29 May 1946) General W. H. Simpson, then commander of the Ninth U.S. Army. "This was raised in priority by us on 5 December, when, on my return from a conference with General Bradley at Luxembourg, I stopped off to have a short visit with General Troy Middleton [VIII Corps commander] at Bastogne. He told me then of his great concern about the German forces on his front. It was his feeling, and I might say that he felt very strongly on the matter, that whereas previously the Germans had been unloading troops in the rear area, bringing some up to the front line and then moving them to other sectors, he felt that now they were trying to keep the same picture as far as we were concerned, but were actually building up a large force in the rear areas. He further stated he had made known his concern to First Army headquarters. . . ."

Although this well-nigh universal perspicacity as quoted was recorded *after* the event, the diaries and intelligence documents and independent recollections of numerous participants (many of them consulted by this writer) agree

that the existence of the Sixth Panzer Army and the weakness of the Ardennes sector were factors that were mentioned at many staff presentations in the days and weeks before the German drive began.

There were—despite the German secrecy—far more specific signs, and these became particularly noticeable after 1 December.

On 20 November a German general was captured by the French on the Seventh Army front. He confirmed, when interrogated, the existence of the uncommitted Sixth Panzer Army, commanded by SS General Sepp Dietrich, and declared that this army was to be "used for a single large-scale counter-attack on the Western Front scheduled for the end of December."

In early December, a copy of a letter signed by "Wissman, Chief of Staff" of the German LXXXVI Corps was captured, which declared that "the Führer had ordered the formation of a special unit of a strength of about two battalions for employment of reconnaissance and special tasks on the Western Front." The battalions, the letter stated, were to be drawn from volunteers who knew English and the "American dialect," and "captured U.S. clothing, equipment, weapons and vehicles" were to be collected and utilized by this special unit. Otto Skorzeny was known to have established a special school near Friedenthal for these men.

Prisoners of war also began to speak of shifts of army boundaries south and east (specifically, shifts of the Fifteenth Army and Fifth Panzer Army southward were reported), and two Panzer divisions—the 2d and 116th—disappeared from the line. The 2d was subsequently reported (among other places) near Wittlich behind the Ardennes front.

Troop and train movements into areas opposite the U.S. VIII Corps front were noted; "a conservative estimate [12 December, Daily Periodic Report, First U.S. Army, G2] would place at least two Volksgrenadier and one Panzergrenadier divisions in the enemy's rear area opposite VIII U.S. Corps."

V-1 fire on Liége and Antwerp virtually stopped in the first two weeks of September.

On 13 December various POWs spoke of three divisional shifts, and on 14 December and 15 December, VIII Corps reported statements of a German woman "believed reliable" who had seen considerable movement of equipment including pontons and bridging material "behind the German lines" (near Bitburg, opposite VIII Corps front) and



Allied and German motor vehicles put out of action by weather and fire during the fighting northeast of Bastogne

noted "an abrupt change of routine of enemy personnel opposite the U.S. 9th Armored Division [which] suggests that new troops may have arrived in that area."

Visual air reconnaissance, although periodically hampered by weather, flew a total of forty-eight missions along the U.S. First Army front in the first fifteen days of December. Five daily missions were planned for each corps front, but along the VIII Corps front in the Ardennes, only eight missions were flown during the period 1-15 December (both inclusive). Both road and rail movements were intermittently detected (when weather permitted), all along the front—most of it to the north in the V and VII Corps areas. "Considerable activity" was noted in the Trier area (northwest of Luxembourg, opposite the VIII Corps front) on 14 December.

Photo reconnaissance missions also picked up enemy activity of many kinds —some of it back of the VIII Corps front—including gun emplacements, troop concentrations, rail and road movements.

Night reconnaissance yielded little information, however, due in part to a major shortage of aircraft.

In a study of enemy armored reserves, by the "Target Subsection" of G2 First Army (dated 8 December), Bitburg and other towns, railheads and rail junctions behind the VIII Corps front, as well as numerous towns behind V and VII Corps fronts were listed as profitable targets—troop concentration areas or railheads.

And about 11 December one of many warnings was sent out by teletype from the headquarters of the U. S. Ninth Air Force to the IX Tactical Air Command and lower units that the Luftwaffe had built up sufficient strength opposite the U. S. First Army front to make air penetrations of about sixty miles above our front lines, and that these penetrations were likely to be attempted during the next two weeks.

Perhaps most important of the "straws in the wind" was the interception and decoding of a German message (by the 12th Army Group G2) about two weeks before the attack, which ordered certain Luftwaffe units to reconnoiter the Meuse River bridges.

And in England, agents in German POW camps reported that 16 December had been set as the date for a mass break, Robert E. Merriam wrote in *Dark December*.

Failure of Perspective

DESPITE all these signs the intelligence reports of the period failed to evaluate the gathering storm in proper perspective.

British Major General Kenneth W. D. Strong, Eisenhower's intelligence deputy at SHAEF, stated on 26 November in his weekly intelligence summary, that "the intentions of the enemy in the Aachen sector [north of the Ardennes] become quite clear. He is fighting the main battle with his infantry formations and army Panzer divisions and with these, he hopes to blunt our offensive." Like most other G2s, Strong throught the Sixth Panzer Army would be used

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in this sector defensively, or in counter-attack when we attempted to cross the Roer River. On 3 December, Strong recorded that the "longest term problem [of the enemy] is to find enough men and equipment to stand up to the present rate of attrition." He felt that to date, attrition losses had been met "to a large extent by feeding the fat from the Ardennes and from Holland to the battle sectors."

SHAEF's Weekly Intelligence Summary No. 38 of 10 December, the last before the German offensive started, opened with the sentence: "On the Western Front an unstable equilibrium is still maintained." The withdrawal of infantry divisions from "quiet sectors for use in the battle areas" was noted, and similar withdrawal of armor "for refit" was reported. "The number of nominal enemy divisions in the West is increased by one to seventy-one. . . . Continuing troop movements toward the Eifel [Ardennes] sector . . . suggest that the procession is NOT [Strong's capitals] yet ended. Other considerable road movements . . . in direction of Holland and in direction of First Army sector." Under "enemy capabilities," the SHAEF report noted heavy German losses, defined the Cologne-Düsseldorf area as the "vital sector" for the enemy; noted that German morale showed "no signs of cracking"; said that so far the battle "must have gone better for him [the enemy] than he had anticipated, and so "we cannot expect anything else but continued reenforcement [in the Cologne-Düsseldorf sector, north of the Ardennes], hard and bloody fighting, every sort of defense. . . . It will be a bitter and hard struggle to reach the Rhine."

There was only a slight note of apprehension; until the Sixth Panzer Army is committed, "We cannot really feel satisfied," Strong declared.

Field Marshal Montgomery's Oxford don, Brigadier "Bill" Williams, G2 for the British 21st Army Group, also produced in early December a glowingly optimistic estimate of German weaknesses, which "Monty" liked so well he incorporated the main elements in a Top Secret order of 16 December (the day the German offensive started) dealing with future Allied operations. Paragraph 3 of this order read:

"The enemy is at present fighting a defensive campaign on all fronts; his situation is such that he cannot stage major offensive operations. Furthermore, at all costs he has to prevent the war from entering on a mobile phase; he has not the transport or the petrol that would be necessary for mobile operations, nor could his tanks compete with ours in the mobile battle."

SHAEF



EISENHOWER



STRONG

Paragraph 4 began with these reassuring words: "The enemy is in a bad way . . ."

The U. S. 12th Army Group's "Weekly Intelligence Summary No. 18" dated 12 December, but for the week ending 9 December, was almost equally definite. Brigadier General Sibert, the G2, had used the writing skill of a well-known author, Ralph Ingersoll, then in uniform assigned to 12th Army Group staff, to produce this report from the facts provided him. It was unfortunate that this estimate, which reached the front-line divisions just before the Germans struck, was unequivocal in its opening sentence:

"It is now certain that attrition is steadily sapping the strength of German forces on the Western Front and that the crust of defenses is thinner, more brittle and more vulnerable than it appears on our G2 maps or to the troops in the line."

The report went on to state that "the deathly weakness of the individual infantry division in the line, plus the inevitability of the enemy failing still further in replacement arrears, make it certain that before long he will not only fail in his current attempt to withdraw and rest his tactical reserve but he will be forced to commit at least part of his Panzer Army to the line.

"The enemy's primary capabilities continue to relate to the employment of the Sixth SS Panzer Army but it may not be possible for the enemy to have complete freedom of choice as to the time and place of its employment. The situation is becoming similar to that which existed at Caen and St. Lo. . . . If the situation deteriorates seriously in the South, he will be forced to transfer some of the armor quickly to that area. At the same time, he must keep a strong reserve in the North to deal with a potential break-through in that area."

The U. S. Third Army G2, Colonel Oscar Koch, came closer to the mark. He reported that enemy rail movements in the early part of December, "indicated a definite buildup of enemy troops and supplies directly opposite the north flank of Third Army, and southern flank of First Army." On 9 December, he thought there were some 6½ enemy divisions in the Eifel area, and on 10 December, Colonel Koch specified that the enemy was able to "maintain a cohesive front" without committing the bulk of his infantry and armored reserves. He declared that the "massive armored force" the enemy was building up in reserve gave him "the definite capability of launching a spoiling offensive."

Colonel B. A. ("Monk") Dickson, the First Army G2, was even more explicit. He was optimistic in his report No. 36 of 20 November 1944, and thought "the enemy's capability of a spoiling attack is now lost." His (the enemy's) "strategic plan appears to be based on counterattack rather than a planned offensive opened on his own initiative."

By 8 December however, Dickson discovered what he felt were strong enough concentrations of the enemy in the Eifel to warrant bombing. General Hodges requested concentrated air attacks and Major General Elwood R. Quesada, Commanding the Ninth Tactical Air Force, endorsed the proposal, but higher Army Air Forces echelons thought the targets "unremunerative." (Letter of

Dickson to author, 28 May 1952.)

In the famous Estimate No. 37, dated 10 December, Dickson changed his tone sharply. The signs he had noted in late November and early December convinced him that "it is plain that his [the enemy's] strategy in defense of the Reich is based on the exhaustion of our offensive to be followed by an all-out counterattack with armor, between the Roer and the Erft, supported by every weapon he can bring to bear. . . .

"It is notable that morale among PWs freshly captured, both in the Army cage and at Communications Zone cage, recently achieved a new high. . . . It is apparent that Von Rundstedt, who obviously is conducting military operations without the benefit of intuition, has skillfully defended and husbanded his forces and is preparing for his part in the all-out application of every weapon at the focal point and the correct time to achieve defense of the Reich west of the Rhine by inflicting as great a defeat on the Allies as possible. Indications to date point to the location of this focal point as being between Roermond and Schleiden [north of the VIII Corps front]. . . ."

Under "Enemy Capabilities," Dickson listed:

"(1) The enemy is capable of continuing his defense of the line of the Roer north of Duren, his present front line west of the Roer covering the dams, and thence south along the West Wall.

(2) The enemy is capable of a concentrated counterattack with air, armor, infantry and secret weapons at a selected focal point at a time of his own choosing.

(3) The enemy is capable of defending on the line of the Erft and subsequently retiring behind the Rhine.

(4) The enemy is capable of collapse or surrender."

Dickson thought that capability No. 1 was "current," and that the exercise of No. 2 "is to be expected when our major ground forces have crossed the Roer River, and if the dams are not controlled by us, maximum use will be made by the enemy of flooding of the Roer in conjunction with his counterattack." But Dickson concluded the famous Estimate No. 37 with a prophetic statement:

"The continual building up of forces to the west of the Rhine points consistently to his staking all of the counteroffensive as stated in capability 2."

This estimate, widely distributed, alarmed some; in England, Lieutenant General Matthew B. Ridgway, commanding XVIII Corps, read it and used it as a warning against overconfidence in a Christmas message he was preparing for his troops; in Belgium, the 9th Armored Division—one of the divisions in the Ardennes sector—was alarmed, but was subsequently somewhat reassured by the 12th Army Group estimate which arrived later.

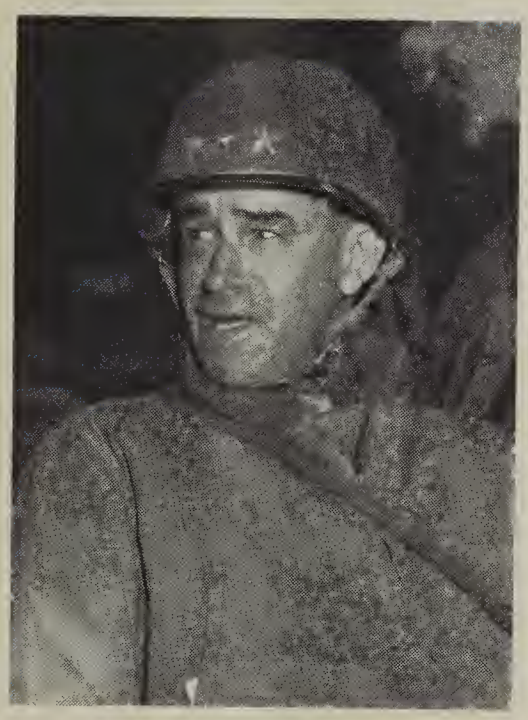
In his last report before the storm struck, a "periodic" dated 16 December, Dickson reported recent information compiled before that date, and stated:

"Reenforcements for the West Wall between Duren and Trier [VIII Corps front] continue to arrive. . . . Although the enemy is resorting to his attack propaganda to bolster the morale of the troops, it is possible that a limited scale offensive will be launched for the purpose of achieving a Christmas moral 'Victory' for civilian consumption.

"Many PW's now speak of the coming attack between the 17th and 25th of December, while others relate promises of the 'recapture of Aachen as a Christmas present for the Fuehrer.'"

By the time this warning had been distributed, the enemy had struck.

12th ARMY GROUP



BRADLEY



SIBERT

Tactical Surprise

WHAT happened is history. The Germans achieved almost complete tactical surprise. The strength, drive and ferocity of their offensive came, especially, as a stunning blow; and the time and place of their assault also surprised us. Surprise was, in fact, the decisive factor in the enemy's early successes. And those successes were major, even though, in retrospect, the Battle of the Bulge comprised victory as well as defeat for American arms.

A reeling enemy suddenly regained his strength and dealt a blow to the Allied morale and the Allied war plans that no historian can minimize. American losses were severe; two divisions were almost broken, others severely mauled, the Third Army alone lost 20,000 battle casualties and 13,778 frostbite and nonbattle casualties in the last two weeks of December; the total toll of the Bulge was more than 76,000 American casualties. The enemy missed by 500 yards a 3,300,000 gallon gas dump. He captured at least 68,000 gallons of gasoline (a drop in the bucket in modern war, not nearly as much as he had hoped and nowhere near enough to keep his Panzers moving), 1,284 machine guns, 542 mortars, 1,344 trucks, and 237 tanks. Tons of ammunition and huge dumps were destroyed to prevent capture.

On New Year's Day, long after the German effort had reached its high-water mark and had begun to recede in blood and wreckage, the Luftwaffe dealt a savage surprise blow (Volume III of *The Army Air Forces in World War II* calls this attack "stunning" and an "ugly surprise") with 700 planes against Allied airfields in the Netherlands and Belgium, a raid which cost the Allies 156 planes.

The whole front was thrown awry and on 12 January when the Red Army jumped off from the Vistula, the Allies in the West were still painfully reducing the Bulge; the German offensive had averted simultaneous attacks upon the German citadel from east and west.

But these initial successes were attained at an eventual terrible cost to the Germans. By the middle of January the enemy had lost in the Bulge an estimated 120,000 casualties and much matériel impossible to replace. Yet the

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Nazis, despite their initial deep penetrations, did not even reach their minimum objective: the crossings of the Meuse. And Antwerp, the basic goal, was far beyond their grasp. The bitter defense of its borders and its desperate gamble in the Ardennes, weakened fatally the Nazis' subsequent defense of the line of the Rhine.

NEVERTHELESS, the facts were clear. The enemy had committed to battle in the Ardennes on 16 December some seventeen divisions, with fourteen more divisions in reserve which were subsequently committed before 4 January. A total of some 240,000 to 300,000 men had been moved into position to strike against the weakest link in the long Allied line from Switzerland to the sea, and our maximum pre-attack estimate of enemy strength in the Ardennes area had been 6½ divisions! Scores of thousands of men had been shifted into the area without our heeding it. Moreover, hundred of fighters—the exact number is unknown—some estimates are as high as 1,500, others much lower—moved from bases in Central Germany to fields in Western Germany to support the ground offensive, again with little warning of the shift.

Field Marshal Keitel and Colonel General Jodl later said with absolute correctness [Robert E. Merriam, *Dark December,* Ziff-Davis Publishing Co.] that the Battle of the Bulge was "fundamentally one of surprise, and to this extent we believe it was a complete success."

Diagnosis or Autopsy

ANY appraisal of what went wrong with our Intelligence prior to the Battle of the Bulge has to start with a state of mind. The American Army is attack-minded. This is at once its strength and its weakness. We paid lip service before World War II to the defensive at our military schools, but our thinking was geared to the attack, and, as the Germans learned, an offensive psychology—overdone—can pave the way to G2 mistakes.

Captain William J. Fox, who was with the V Corps at the time of the Bulge battle, has depicted this state of mind:

"The whole air of the First Army zone was one of slightly angry bafflement, for we had been trying since early November to crack through to the Cologne Plain and reach the Rhine. The psychology still was one of attack, however, and no one seemed seriously to consider that the Germans had a Sunday punch left. The mental approach from the lowliest man in the front line to the highest brass on the staffs was one of attack. . . . None of us found any evidence among our troops or commanders of awareness that a possible large-scale German counter-attack might be in the wind."

Coupled with this attack psychology was a slightly angry bafflement and frustration at continued German resistance and at prolongation of the war into winter. There was some resignation, and—as always—an attempt wherever conditions permitted to make the best of any small luxuries the field allowed. This was true on the VIII Corps front, where the badly battered 28th and 4th Infantry divisions—both veterans of Hürtgen Forest—were trying to catch their breath, and where the 106th, new to war, was shakily fitting into combat condition.

It was true, too, of First Army headquarters at Spa, Belgium.

"Until then," a staff officer of that time wrote (3 October 1946), "we had been in the field in tents. I mention this because there is no doubt that once we moved into buildings we began to feel more civilized, and on the whole I don't think the headquarters was on its toes as much as it had been when the men were out in the swamps or fields. Spa, an almost untouched city, is one of the great European resorts, and the buildings into which we moved offered many luxuries. The brains of the headquarters—the Commanding General, the Chief of Staff, and the G2 and G3 sections, as well as a few others—were stationed in the Hotel Britannique, five minutes off the main square of Spa . . . [a hotel which] had served in 1918 as the Imperial German Headquarters . . ."

These psychological influences could not help but affect intelligence officers, British as well as American.

"We were fooled because we were overconfident," Robert E. Merriam wrote in *Dark December,* "and certain that we had the Germans on the run. Intelligence officers, who were supposed to be born pessimists, were vying with each other for the honor of devastating the German war machine with words."

The "attack psychology" and the doctrine of the offensive also had another effect in the American Army; it resulted, almost universally, in the downgrading of G2. In theory, sometimes in rank, but rarely in fact, were the G2s and G3s co-equal and supplementary partners.

There was then, and there still is today a tendency on the part of most commanding generals to lean more heavily on G3 than on G2; the perfect staff blend is rarely found.

General Bradley used to say that "My 2 tells me what I should do; my 4 tells me what I can do, and I tell my 3 what I want done." The then 12th Army Group commander made his decisions after a careful briefing from his G2 and a subsequent long study of a terrain map. But this was not universal practice; too often, the dash and aggressiveness of American commanders could be reflected in Farragut's: "Damn the torpedoes; full speed ahead!"

This is indeed admirable courage but it is not recommended for application to all battle situations. A proper appreciation of the enemy is the key to success in war; the German and Japanese armies possessed the aggressive spirit to as high a degree as any armed services on earth,

21st ARMY GROUP



MONTGOMERY



WILLIAMS

yet their estimate of the enemy who defeated them verged on the contemptuous.

In the First Army headquarters at the time of the Battle of the Bulge, that happy melding between G2 and G3 which is the key to success in battle did not exist. Colonel Dickson, the G2, was outranked by the G3, who was promoted during the earlier part of the continental fighting. At the time of the Bulge, Dickson was very much opposed to the Hürtgen Forest battle, and the dichotomy that existed between him and G3 was more marked than normal because of the existence at the Spa headquarters of two separate staff messes, with Dickson, a colonel, assigned to one, and with the chief of Staff, G3 and G4 and other general officers in charge of staff sections, in another.

This down-grading of intelligence, about which General Eisenhower and so many other American officers then commented, was compounded at the time of the Battle of the Bulge by personality differences. Nearly all official histories of war—our own included—treat these human conflicts lightly, if indeed at all, but men—not machines—make war and the interplay of personalities, inescapable in all human endeavors, has often changed the course of campaigns.

Personalities had no such far-reaching influence in the Bulge Battle but these human likes and dislikes had some importance.

"Within the First Army headquarters," a staff officer then assigned wrote, "personalities played a big role."

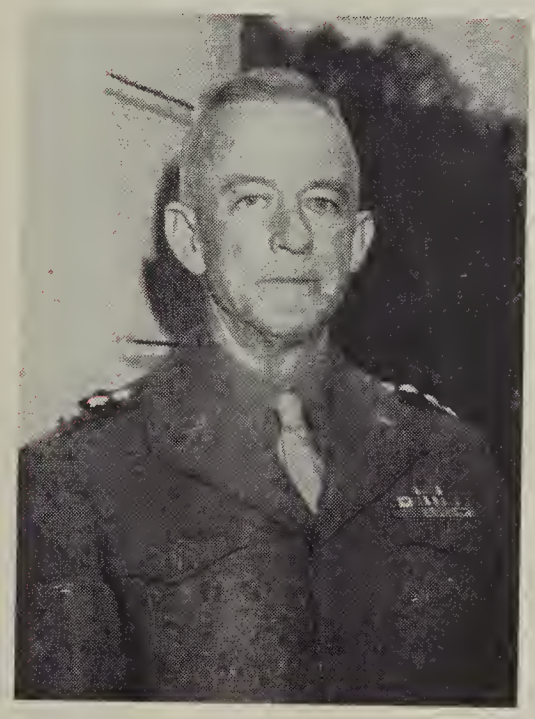
The differences between G2 and G3 in this headquarters and to a lesser extent between G2 and the Chief of Staff were in part due to personality clashes; the three men were utterly different in methods, temperament and outlook. At the daily conferences it seemed to some of Dickson's officers that his intelligence estimates, sometimes enlivened by the peculiar slang of the trade (Dickson called prisoners "customers"), were not always taken too seriously.

There was also what might be described as a "coolness" between G2, First Army—Colonel Dickson—and G2, Twelfth Army Group—Brigadier General Sibert. Again rank intruded; Dickson, the veteran of First Army action, who had served in North Africa and Sicily, and had landed in Normandy, was still a colonel, and was still G2 of First Army, though his chief, General Bradley, had "fleeted up" to command the 12th Army Group. Both Dickson and Sibert came from old Army families; their fathers had known each other in Panama years before; Dickson, a West Pointer, had left the Army to return to service in World War II; Sibert, a year ahead of Dickson, had stayed in. The difference in rank and position, plus the entirely different personalities of the two men, had an effect upon their relationships, which were always correct and never hostile—but certainly not cordial.

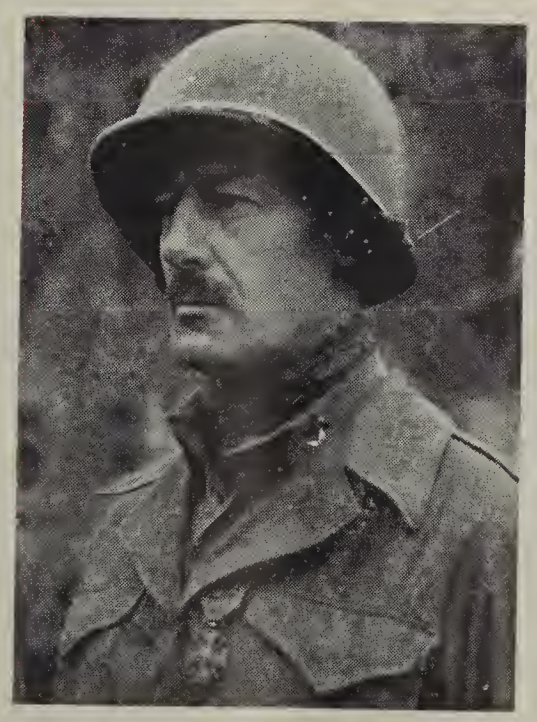
This feeling was never expressed openly by either man; in correspondence and interviews with this author, both have discounted it; but their staffs felt, and expressed it. The OSS operatives, for instance, who worked out of 12th Army Group headquarters, had a picture of Hitler at their CP, and under it it bore the totally unfair legend:

"He fools some of the people some of the time but he fools Dickson all of the time."

FIRST U. S. ARMY



HODGES



DICKSON

This almost sophomoric display did not stem, however, entirely from the First Army-12th Army Group frictions, but in the case of the OSS, it resulted in part because Dickson with General Bradley's support had strictly limited OSS operations in the First Army area.

The friction seems to have been worsened somewhat by the lack of a sense of humor of an OSS officer at the 12th Army Group. Someone at First Army wrote a humorous parody of a PW report, alleging to represent the results of an interrogation of "Hitler's latrine orderly." The one OSS officer then permitted to head a section (counter-espionage and anti-subversion) in the First Army took this parody to his superior at 12th Army Group "for a laugh." Unfortunately, the paper was taken seriously; First Army was ordered officially to fly the prisoner to SHAEF and when the explanation that it was all in fun was made, there seems to have been considerable embarrassment among the 12th Army Group OSS personnel.

There were also lesser frictions—due in part to personalities, in part to individual intrepretations of natural interests at SHAEF itself. And General Strong, the British G2 at SHAEF, and one of his deputies found themselves at odds on occasions with the British Oxford don —Brigadier Williams, who was Field Marshal Montgomery's able intelligence officer.

These personality frictions were complicated by differing American and British intelligence concepts. General Strong, for instance, seemed to feel, in accordance with British practice, that he occupied a sort of command position in relation to the G2s of the army groups and field armies, and he actually undertook to take both Brigadier Williams—a Britisher, who understood this concept—and Colonel Dickson, an American, who did not—to task for what he, Strong, felt were mistakes in their order of battle estimates.

Among American G2s there was relatively little coordination, no real "meeting of the minds" and only intermittent attempts to reconcile differing estimates. There was no such "command concept" as that which motivated General Strong. There was a strong feeling that G2 estimates should be made readable and "lively"; many of them were embellished with quotations and historical analogies, but some paid too much attention to this literary surface dressing and not enough to the solid subsoil of fact.

The lack of direction and coordination

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was further complicated by the old problem of "capabilities" or "intentions." The British often undertook to establish the enemy's intentions, with all the risks inherent in such prophecy: the U.S. listed every possible capability under the sun, some of them differing markedly: from all-out offensive, to "collapse and surrender."

Another and more basic failure was the inadequacy of collection; we just did not get all the facts that were available. There was a variety of reasons for this.

In General Sibert's words "we may have put too much reliance on certain technical types of intelligence, such as signal intelligence . . . and we had too little faith in the benefits of aggressive and unremitting patrolling by combat troops. We had no substitute, either, for aerial reconnaissance when the weather was bad; and when we came up to the Siegfried Line, our agents had great difficulty in getting through, particularly in the winter."

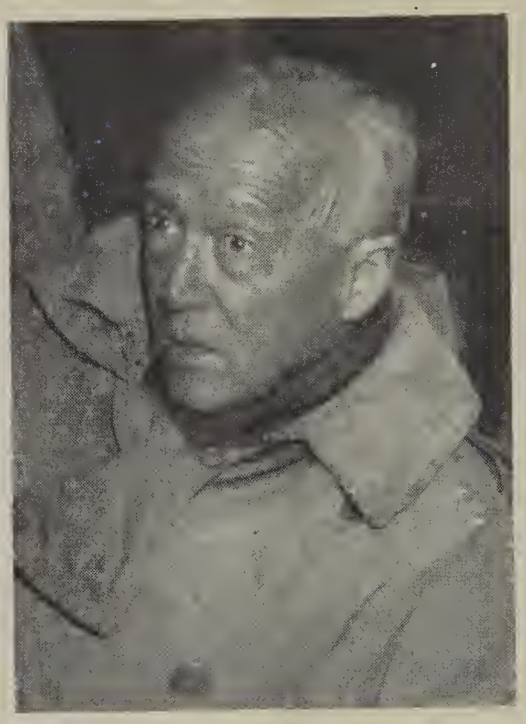
Dependence upon "Magic," or signal intercepts, was major, particularly at higher echelons; when the Germans maintained radio silence, our sources of information were about halved.

The most outstanding failure was in aggressive patrolling, the weakness that is constantly emphasized in every maneuver and in every recent war in which Americans have engaged. This failure to probe deep into the enemy's lines to bring back many prisoners and force him, by reaction, to reveal his intentions, was particularly pronounced on the VIII Corps front, where the natural let-down of exhausted troops shifted from bloody carnage to a "quiet sector" was a factor. And at higher headquarters too little attention was paid to even the few ground patrol reports that were available.

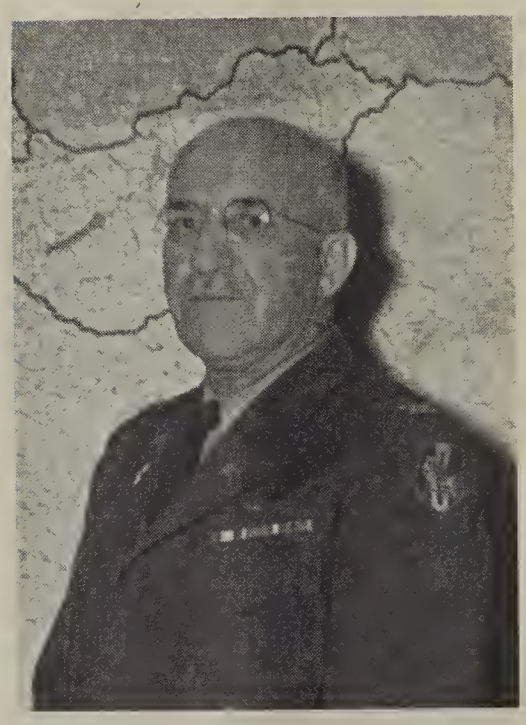
The reduced reports of agents behind the enemy's lines, in part due to tighter German security measures, also reflected a lack of adequate coordination between the Office of Strategic Services, an outfit for which too many of the combat units had little use, and the Army. There was also a misuse of the intelligence sources available to a field army.

The limited success of air reconnaissance was in part due to the atrocious weather, but the night air effort was also handicapped by shortages of adequate aircraft. Moreover, the value of visual reconnaissance, as distinct from aerial photography, could not be measured by the numbers of missions flown or the reports made (many of which were erroneous), for the pilots and observers

THIRD U. S. ARMY



PATTON



KOCH

were largely untrained in identification of ground targets. Martin M. Philipsborn, then a Major and S2 of Combat Command B of the 5th Armored Division, in a "Summary of Intelligence Operations" from July 1944 to May 1945 (27 May 1945), commented on "the absolute and complete failure of aerial reconnaissance." Increased "tank and vehicular recognition courses for the air force" were indicated.

The ground-air organizational liaison also left something to be desired. The official history—*The Army Air Forces in World War II* (Volume III, page 68)—comments that "the air force was responsible for the initial screening of the results of its own reconnaissance. Perhaps the chief fault was one of organization, for there seems to have been a twilight zone between air and ground headquarters in which the responsibility had not been sufficiently pinned down."

There was, finally, a failure in evaluation. For no one predicted accurately the German offensive. Colonel Dickson, G2 of the army most involved, was closest; his estimates just prior to the attack, warned clearly of the danger of a heavy German blow. But he was wrong as to place; the German security measures were successful in that they made us believe the attack, when it came, would be toward the Aachen area—north of the Bulge. And he was somewhat inexact as to time; Dickson expected the "counterattack" or "counteroffensive" (as he variously called it) when we had crossed the Roer or controlled its dams. Neither Dickson nor anyone else correctly assessed the power of the enemy drive. Moreover, Dickson's definite note of warning was diffused, as were the estimates of all other G2s, by inclusion of numerous "capabilities." We hedged against all bets.

Correct evaluation might have rectified weaknesses in organization, differences in concept, personality frictions, and inadequate collection. But it did not do so. As Colonel Showalter demonstrated in the *Military Review*, "aggressive patrolling increased [on the part of the Germans], high-caliber units were reported in the front line, river-crossing equipment was located in the forward areas, troops were recalled from the rear, and a large build-up, including armored divisions, was reported in what previously had been a quiet sector. In spite of these telltale signs, intelligence estimates were *not* materially revised. [Colonel Dickson's particularly—and to a certain extent, the report of Colonel Koch—were exceptions] . . . intelligence did not measure up to the trust of its commanders. . . ."

The failures in evaluation were, in one sense, a composite of all the weaknesses previously noticed, plus other factors.

There was far too much of a scratch-my-back-I'll-scratch-yours attitude among various G2s. Each echelon was eager to pad out and expand its factual output. Bits of information, often reported speculatively, would be picked up by higher G2s, and would appear and reappear in echelon estimates, often with the qualifying factors omitted, until they came to be accepted as facts, instead of possibilities.

Higher echelon G2s, privy to a flow of information from "Magic," British Intelligence, OSS, and others, often incorporated so much in their reports that

front-line combat units received a plethora of data, much of it of little use to them; the lower-level G2 had great difficulty in separating the chaff from the wheat.

The deficiencies of much of this "high level stuff"—which gave for instance the strategic situation on the Russian front, and described the psychology of the Rhinelanders—is best illustrated in the official words of Major Philipsborn (Summary of Intelligence, 27 May 1945):

"While it is perhaps an exaggeration, nevertheless there is a certain amount of truth in the statement that while we knew to a nicety where bridges, fords and brothels were located in towns all around us, we rarely, if ever . . . knew where the enemy's anti-tank gun was sited."

Conclusions to a Case History

SUCH, then, was the case history of intelligence in the Battle of the Bulge.

History, many say, is simply Monday-morning quarterbacking. But the intelligence lessons of the Battle of the Bulge are still pertinent today, in an era when accurate intelligence may mean the difference between national life and death.

The lessons of the Bulge are clear:

(1) Maintenance at all levels of an objective frame of mind; the "attack psychology", overdone, can lead to disaster.

(2) Maintenance of G2 officers at all levels as heads of staff sections co-equal with all other staff sections. A proper rating of G2 and G3 is a key to victory; they must work as one; there can be no downgrading of intelligence.

(3) Elimination of staff and personality frictions at all levels is the responsibility of command.

(4) Improved coordination between differing echelon G2s; a modified version of the British command system might be tested. Reports sent to lower commands must be carefully sifted to eliminate unnecessary detail.

(5) Modification of our estimates to something perhaps halfway between the British emphasis upon enemy "intentions" and our own tendency to list enemy "capabilities" as a means of hedging all bets;

(6) *Aggressive patrolling at all times and at all parts of the front;*

(7) Better training of air reconnaissance units and improvement of night reconnaissance techniques;

(8) Full utilization of *all* available collection sources;

(9) Careful selection of intelligence officers for their: analytical ability and aptitude in the collation of facts and their synthesis; knowledge of the enemy; judgment and ability to work in harness;

(10) Establishment of career intelligence officers and the training of specialists, particularly in the field of evaluation.

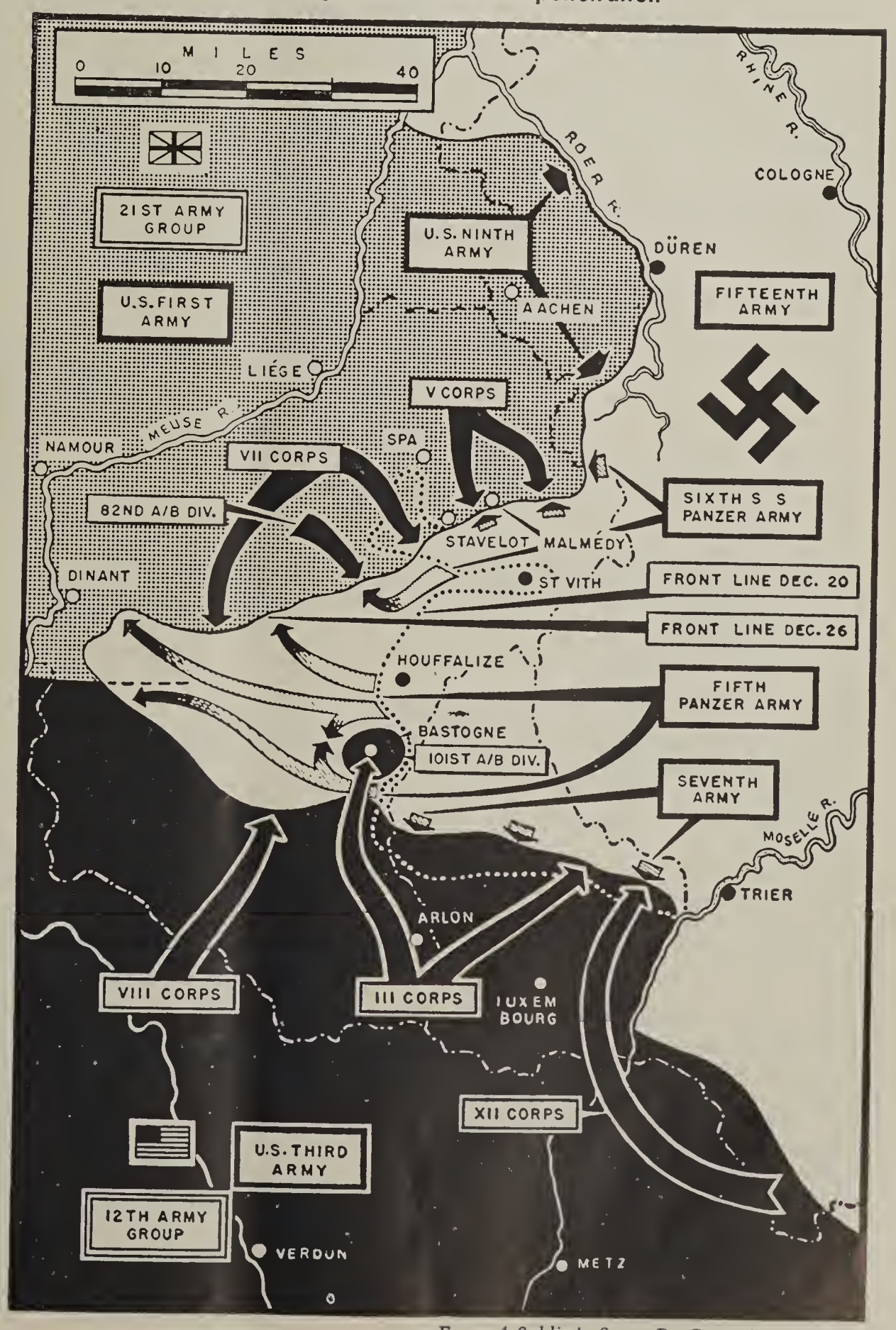
That these lessons are still applicable today—eight years after one of the greatest battles in which Americans have ever fought—is attested by the report of an operational analysis study, which held that the collection, evaluation and distribution of battlefield intelligence by both the Army and Air Forces were entirely inadequate.

The aggressive spirit is a priceless heritage of the American armed services. Without it there can be no triumph in war. But its overemphasis—and consequent neglect of the defensive and of a knowledge of your enemy—can lead to disaster, particularly in the age in which we live, where we face an enemy more nearly comparable in strength to ourselves than any in our history.

Today, inscribed in the brain of every commander, there should be one slogan:

"Know your enemy—or die."

The high tide of German penetration



From *A Soldier's Story*. By General Omar Bradley. Copyright, 1951, Henry Holt & Co., Inc.

UNIVERSITY OF ILLINOIS

FRONT and CENTER

THE INFANTRY SCHOOL

New Film

Representatives of 20th Century-Fox Corporation have been at The Infantry Center to film training activities as part of a documentry movie, "Report to the Army" —an hour-long Technicolor film covering the activities of the whole Army. Produced by the Department of the Army it will include shots of Army activities at many posts and stations in the United States and overseas.

Helicopter Company

The 506th Transportation Company, one of three helicopter units in the Army, has been assigned to TIC. It will be used in problems and demonstrations of TIS.

When fully equipped, the helicopter company will have 14 Sikorsky H-19 helicopters and two Hiller H-23s. The H-19, which is used primarily for troop-carrying and evacuation missions, can transport 10 fully-equipped infantrymen or six litter patients. It has a flying speed of approximately 100 miles per hour and can stay aloft for as long as three and one-half hours.

The H-23 is used primarily for utility and observation missions.

In combat, helicopter companies of this type perform short-haul operations in tactical and logistical support of front-line units.

The 506th Transportation Company has 23 warrant officer pilots, all recent graduates of the Helicopter School at Fort Sill.

M1 As a Sniper Weapon

The Combat Development Section of TIS is currently testing the effectiveness of the M1 rifle as a sniper weapon. Its accuracy is being compared with that of bolt action rifles to determine:

(1) Whether the M1 is sufficiently accurate to warrant its continued use as a sniper weapon.

(2) What modifications would improve the accuracy of the M1.

(3) What ammunition, other than the M2 ball, would be most effective for sniping.

Rifle Marksmanship Course

The second Instructors' Rifle Marksmanship course is in session. Four two-week courses, designed to standardize and raise the level of rifle marksmanship instruction throughout the Army, will be held yearly. Selected officers and enlisted men from all army areas attend the course.

4.2-Inch Mortar Battalion

The Infantry School has been given the responsibility for instruction related to the 4.2-inch chemical mortar battalion which was recently designated an infantry battalion. It is anticipated that the 4.2-inch Mortar Battalion Course will be from four to six weeks in length and will emphasize gunner and FDC training.

THE ARTILLERY SCHOOL

Realism in FO Training

TAS has devised a gunnery problem that makes the training of artillery observers much more realistic. During a service practice period, the students are designated forward observers with a front line rifle company about to launch an attack. Each student is equipped with an M2 compass, binoculars, a map of the area and necessary communications. The students walk to eight different OPs, a total distance of about 1½ miles. They adjust fire from each OP using different equipment. At each of three OPs, they are assumed to have lost one of the three items of equipment, and, as a final test, they are required to adjust fire without a compass, map, or binoculars.

The "walking OP" approximates combat observer conditions, giving the student a different perspective of the terrain from each position and requiring him to adjust fire under different conditions.

Battalion Defense

The Department of Combined Arms, including all the latest changes in the T/O&E for a 105mm howitzer truck-drawn firing battery, has given a new look to its demonstration, "Organization and Defense of a 105mm Field Artillery Battalion." The demonstration shows six 105mm howitzers dug-in and camouflaged with a network of communication trenches connecting howitzer positions and the battery fire direction center. Barbed wire encloses the battery perimeter. Machine gun emplacements, rocket launcher positions, and individual foxholes are located for final defensive fires. All automatic weapons are emplaced to insure interlocking bands of fire. The proper organization of the headquarters battery area, including the message center, switchboard, battalion aid station, fire direction center, and landing strip, is also demonstrated.

Observed Fire Fan

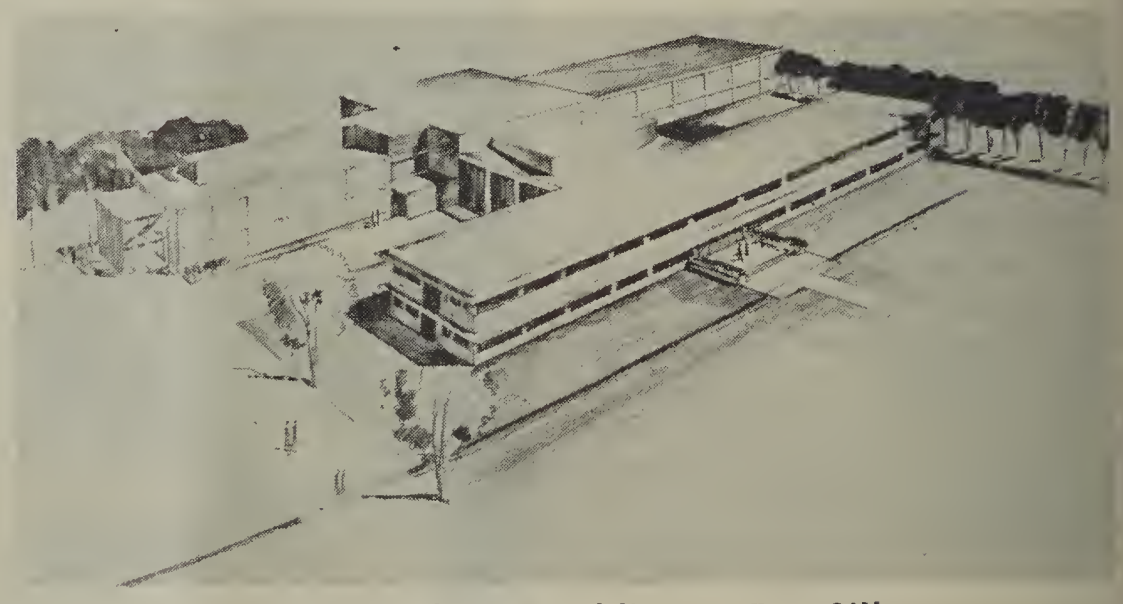
The Department of Gunnery now issues students in Battery Officer and OCS classes an OF fan to assist in target location. The instrument is simply a fan-shaped protractor constructed of transparent material, covering a sector of 1600 mils. It is divided by radial lines each representing 50 mils. Range arcs are drawn on the face of the fan every 50 yards from 1000 to 4000 yards and at 5000 yards.

To use the fan, the student places the vertex over his map location. He then orients the fan on the map location of a point of known direction. For example, if the azimuth to a known point in the center of his sector is 1300 mils, the student places the fan so that the center ray passes through the map location of this point. With a grease pencil he labels this ray 1300 and the other rays appropriately.

Upon the designation of a target on the ground, the student measures its azimuth with his compass. Then with the fan oriented (the 1300-mil ray over the known point), he will find the target somewhere along the ray representing the azimuth to the target. By comparing the terrain near the target with the map contours along this ray, the student normally comes up with excellent coordinates for his initial round.

CBR Training

In keeping with Army emphasis on CBR (chemical, biological, radiological warfare



New Academic Building at Fort Sill

This is the architect's conception of the new academic building planned for The Artillery Center, Fort Sill, Okla. Construction is expected to begin this year.

training, the Department of Combined Arms has expanded its conference on biological warfare to include the other members of the CBR family. The new three-hour conference is designed to give students a basic appreciation of CBR warfare and is attended by battery officers and OCS classes.

H-25 Transition Training

TAS began transition training on the H-25 helicopter in January. The H-25, officially dubbed the "Army Mule" by Army Field Forces, is a medium-size tandem (two main rotors) helicopter designed for light transport and evacuation of wounded.

New Training Films

Field Artillery Radar. The Signal Corps Photographic Center, working in conjunction with the Department of Observation, TAS, has recently completed work on a new training film, TF 6-1757, *Field Artillery Radar*. To be released shortly, the film orients artillerymen on the capabilities and limitations of radar when employed with field artillery. It depicts the basic siting requirements for a counter-mortar or counterbattery radar. In live action sequences the film explains the techniques by which radar is used to locate enemy weapons, to register and adjust friendly artillery, and to detect and locate moving ground targets such as enemy vehicles and personnel. The film shows the artillery's newest radar, the AN/MPQ-10. Weighing about 3 tons, the set is mounted on a 40mm gun carriage and towed by a conventional 2½-ton truck. A separate console containing the necessary dials and controls permits remote operation of the equipment.

Viewing time of the black-and-white film is approximately 25 minutes.

RSOP. Review of TF6-1813, *Field Artillery RSOP*, has recently been completed at TAS. In two parts, it is designed to familiarize field artillery personnel with the actions and duties of key personnel in the reconnaissance, selection, and occupation of position. It was especially prepared for use in units preparing to undergo advanced tactical training. Part I covers RSOP from the rendezvous and Part II from the march. In black and white, the film lasts approximately one hour.

ORC Lecture Tour

Mobile Instructional and Demonstration Team No. 4, a group from the Combined Arms Department, are visiting ORC schools throughout the Fourth Army Area.

The team instructs reservists "The Infantry-Tank-Artillery Team." The tour is designed to acquaint reservists with current doctrine and technique in the training and employment of combined arms. Emphasis is placed on functions of the various arms, communications, control measures, and the individual as a member of the team.

Infantry School Instructional Material

The following new instructional material suitable for non-resident as well as resident instruction may be ordered from the **Book Department, The Infantry School, Fort Benning, Ga.,** at the prices shown. (The COMBAT FORCES Book Service regrets that it cannot handle orders for these pamphlets.)

WEAPONS DEPARTMENT

Mechanical Training, M1 Rifle: No. 1102. General data: nomenclature, disassembly, assembly and functioning. TF 9-117. "Principles of Operation. M1 Rifle." 4 hours. 6¢

Marksmanship Practice Firing SMG: No. 1157. Range procedure; safety precautions; demonstration firing; practice firing, SMG. 1 hour. 10¢

Hand Grenades: No. 1202. Types, characteristics, functioning, positions, throwing of explosive grenades; throwing of training hand grenades; grenade assault course. 3 hours. 10¢

Technique of Rifle Fire: No. 1265. Field target firing. Introduction to field targets to include squad control, issuance of orders, distribution of fire, teamwork, target control and firing limits. Practical work in field target firing. 8 hours. 10¢

Mechanical Training, Cal .30 MG M1919A6 and M1917A1: No. 1302-09. Methods of training, general data; nomenclature; disassembly and assembly; head-space adjustment; functioning; stoppages and immediate action. 6 hours. 6¢

Marksmanship Cal. .30 MG M1919A6: No. 1333. General orientation; methods of instruction; instruction practice firing, Table II, Course A; concurrent training in mechanical training, and measuring and laying off angles. 8 hours. 6¢

Marksmanship, 57mm Rifle: No. 1725. Characteristics of ammunition; safety precautions; organization squad and section; sighting and aiming; stadia sight; qualification courses, and position. 4 hours. 10¢

Marksmanship, 57mm Rifle: No. 1758. 1000-inch subcaliber Course "C," safety precautions, range organization. 4 hours. 10¢

TACTICAL DEPARTMENT

Interior Battalion in Attack: No. 2222. Principles applicable to interior units in offensive combat; map exercise illustrating a reinforced interior battalion in attack emphasizing assembly area phase, troop leading, preparations for and conduct of the attack. 4 hours. 30¢

Coordinated Fire Plan: No. 2409. Coordinated fire plan of a front-line battalion to include: the development of long range fires; close defensive fires, final protective fires, and fires within the battle position; roles of machine guns, 81mm mortars, heavy mortars, and field artillery with emphasis on the employment of the fires of these supporting weapons. 2 hours. 5¢

COMMUNICATIONS DEPARTMENT

Communications for an Infantry Regiment in Attack: No. 3665. The duties of battalion and regimental communications officers and the principles of employing signal communications for these units during the attack, with emphasis on the selection of command posts and means of maintaining communication with adjacent units. 3 hours. 40¢

STAFF DEPARTMENT

Strengths, Records and Reports: No. 6404. Methods and techniques of maintaining the journal and work sheets. Purpose and methods of strength reporting; sources and use of data. Importance of and methods of casualty reporting. S1 responsibility for records and reports. 3 hours. 30¢

Unit Report: No. 6448. Regimental unit report to include time of submission, period covered, purposes and uses and preparation of the report by the regimental staff. 3 hours. 50¢

New Academic Building under Construction. The Artillery School has departed from the traditional Spanish in favor of modern architecture in the design of its new academic building now under construction. Shown in the artist's drawing above, the two-story, reinforced concrete building will resemble an airplane when viewed from above, the "nose" pointing to the south. The "wingspan" will approximate 540 feet, the "tail" 274 feet and the "fuselage" 300 feet. The giant building will comprise some 190,000 square feet of floor space and contain 180 rooms, including 41 offices, 48 classrooms, a snack bar, and an auditorium seating 400.

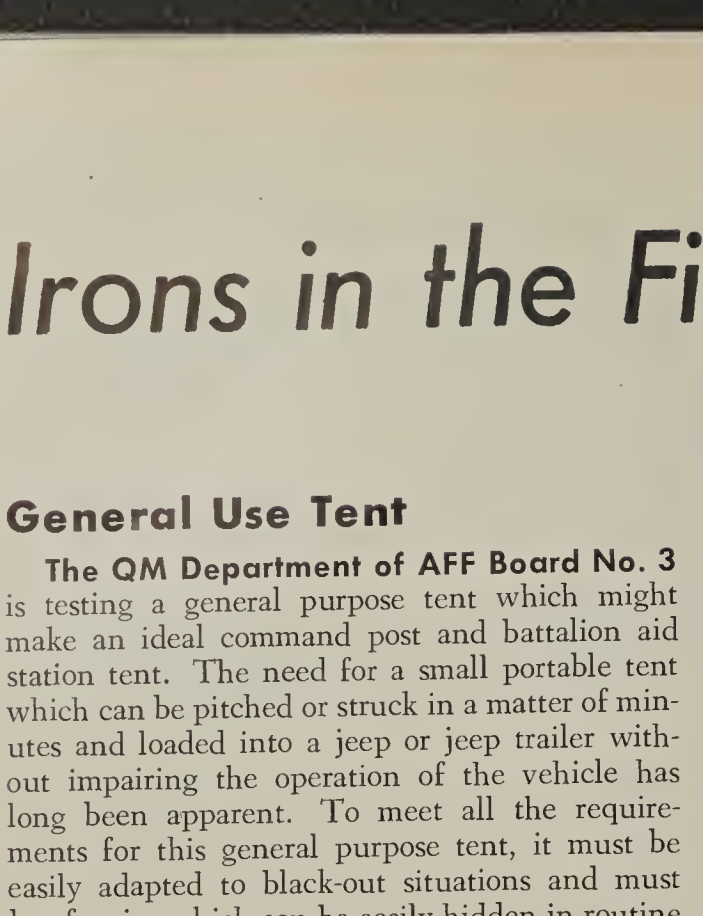
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Irons in the Fire



General Use Tent

The QM Department of AFF Board No. 3 is testing a general purpose tent which might make an ideal command post and battalion aid station tent. The need for a small portable tent which can be pitched or struck in a matter of minutes and loaded into a jeep or jeep trailer without impairing the operation of the vehicle has long been apparent. To meet all the requirements for this general purpose tent, it must be easily adapted to black-out situations and must be of a size which can be easily hidden in routine camouflage practice. The QM Corps Textile Products Division has worked out many designs but none has completely fulfilled the requirement. The latest model, which is undergoing comparative tests with the standard 1945 CP tent, appears to come close to all requirements. It is being tested at the Arctic Test Branch and by the Caribbean Command. The goal is a design which can be used for: (1) Command Post for Battalions and Regiments; (2) Battalion Aid Station; (3) Small Unit Storage; (4) Fire Direction Center; (5) Chaplain's Consultation Room.



Portable Periscope

FO Periscope

This light, portable periscope was developed by The Artillery School to train forward observers in the adjustment of close-in fires. Simple but effective, it enables the observer in a dugout to adjust fire within fifty yards of his position. So far only a training instrument, it is not yet available for distribution.



T-35 Buckaroo Trainer

New Training Planes

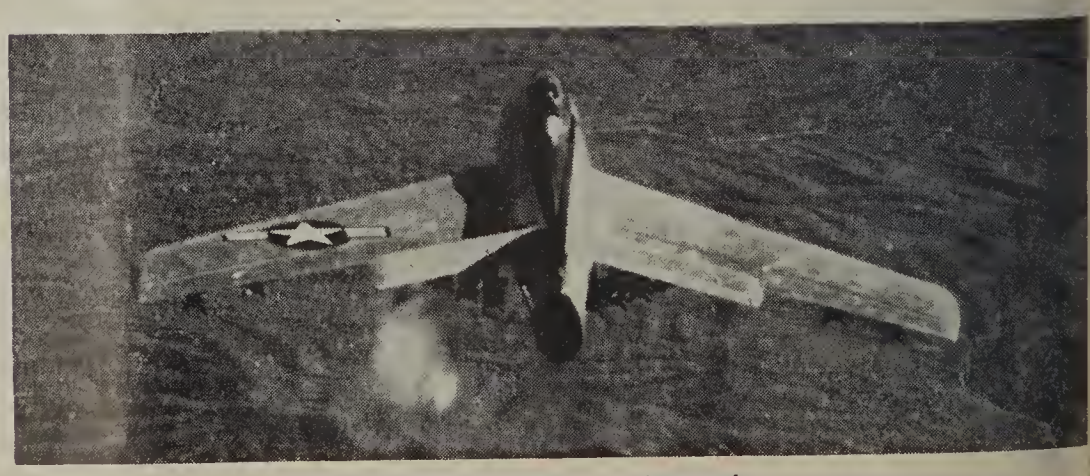
Two new training planes are in the news this month. USAF has awarded a contract to Cessna Aircraft Company for the development of a twin-jet primary training aircraft which will be known as the Cessna Model 318. Cessna's proposed model provides for a lightweight, all-metal, single-wing aircraft incorporating two-place, side-by-side seating and powered by two low-thrust centrifugal flow, turbo-jet engines. The aircraft will also be equipped with a fully retractable tricycle landing gear. Temco Aircraft Corp. has a contract to produce a limited number of the T-35 Bucakroo trainer and ground support aircraft. The T-35 is an all-metal trainer powered by a 165 horsepower Franklin engine. It will be equipped to carry two caliber .30 machine guns with 500 rounds for each gun, a gun camera, gun sight and ten 2.25-inch rockets complete with intervalometer fire control system.

Light Steel

Steel has long been too costly for use in house or small-buildings construction, but Penn Metal Co. is now making lightweight steel sections that may prove economically feasible for smaller construction jobs. The sections fabricated from strip steel by cold rolling, are designed for custom framing. They can be easily cut and welded in any design. Single sections can be spot welded back-to-back for heavy loads and long spans. A crisscross pattern gives strength and lightness. At present sections are available in standard widths of 3½-inch, 4-inch, and 8-inch in 14 and 16 gauge steel.

New Jet Fighter

USAF has accepted an advanced design of the Thunderjet—the F-84F Thunderstreak, manufactured by Republic Aviation. The swept-wing fighter is in the over-600-miles-an-hour class and is capable of long-range performance. It is powered by the new Sapphire power plant, called J-65 by the Air Force which produces 7200 pounds of thrust, making it one of the most powerful jet engines in operational service today.



Republic's F-84F Thunderstreak

★ BOOK REVIEWS ★

BILLY MITCHELL

GENERAL BILLY MITCHELL: Champion of Air Defense. By Roger Burlingame. McGraw-Hill Book Company, 1952. 192 Pages; Illustrated; Index; $3.00.

Disagreement concerning General Billy Mitchell's character and influence on events will undoubtedly never be settled to everyone's satisfaction. The hero worshipers claim too much, the detractors are too prone to belittle and criticize. Mr. Burlingame's efforts to steer a neutral course in this brief and readable biography are reasonably successful. He seeks to make the controversial general a wholly predictable human being by analyzing his character and his military achievements that began in the Spanish-American War. His accounts of Mitchell's experiences in the Signal Corps and his early flying are sympathetic and understanding. Mitchell's personal bravery, moral courage, intense energy and ability as a flyer made him a natural leader in aviation in France in World War I. His very enthusiasm for his profession, however, antagonized many people then and subsequently. As I knew Billy Mitchell personally and admired him for his many qualities, I always regretted that his foresight in anticipating the future of air power could not have been tempered by diplomacy and tact and by a greater discrimination in his claims for air power.

What I mean is well illustrated by Mr. Burlingame who occasionally allows himself to be blinded by the enthusiasms of his protagonist. He writes that in 1914 Mitchell "saw an entirely new kind of war which would scrap all the previous military thinking through history: would nullify fortifications, reduce sea power, set a whole new pattern for intelligence, and, finally, bring civil populations under fire." There is no question about the final statement nor is there any debate concerning the valuable contribution of aviation to intelligence. On the other hand, national security is not served by stating that air power would scrap all previous military thinking. The hard-learned lessons of strategy still prevail. Again it is an unwarranted exaggeration to say that air power nullifies fortifications. Reading the daily newspapers is ample evidence that the field fortifications in North Korea are extremely invulnerable to air attack.

Let us consider that statement about sea power. If we did not control the seas, the amount of flying in Korea would be greatly diminished. This tendency on the part of General Mitchell and Mr. Burlingame to deny the importance of sea power is unfortunate. Although the author refers to the Japanese attack on Pearl Harbor in the place as the use of a strategic air force, elsewhere he points out that the air attack came from Japanese flattops. Under these circumstances it is somewhat difficult to understand the unwillingness to admit the military value of naval aviation and of sea power.

Today there is recognition of the great service rendered his country by this ardent enemy of the *status quo*. Mr. Burlingame's life of General Billy Mitchell is a labor of love that is generally persuasive and always interesting.—Brigadier General Donald Armstrong.

WHAT HAS HAPPENED TO US

THE BIG CHANGE. By Frederick Lewis Allen. Harper & Brothers. 293 Pages; Appendix; Index; $3.50.

Men in the armed forces should welcome Mr. Allen's book as something they ought to know if they are to perform their professional duties with understanding. For in the colloquial language of everyday life, Mr. Allen contrasts the United States of 1900 with 1950 and accounts with notable success for the present structure of American society. His book is history but not the stuffy chronicle that scholarly historians used to write. Mr. Allen reminds us of the incredible material advances of the past half century, but he is more concerned with the less obvious changes in our social, economic and governmental institutions and in our basic ideas that have gone hand in hand with the material improvements our people enjoy. His book is a thoroughly enjoyable short cut to a better understanding of the American way of life.

Military men are increasingly aware of the need for broadening their horizons with this kind of knowledge. They know they cannot be indifferent to the tangible and intangible things that are the real foundation of national power. They deal intimately with the more than 155 million men and women who live in the U. S. They depend on the skills of these millions and on their morale to provide the big battalions for battle or better still, to build up an army, navy and air force that will lessen the chances of war. They look to the farms, forests, factories and all the other economic resources and tools of production to furnish food, clothing and weapons. They realize that the way government, industry and labor are organized to work together harmoniously and effectively will determine the success or failure of their efforts. There is great need that they comprehend the civilization in which they live and work.

Mr. Allen delves into the ways of American industry and labor in 1900 with devastating honesty and plain speaking. The old order has many aspects that were as antisocial as the *Ancien Régime* before the French revolution. The special rights and privileges of corporations, the control exercised by the banking fraternity, gave insufficient consideration to the rights of men and to human relations. Labor endured long hours and low wages. There was a degree of non-interference with industry and banking that today is almost unbelievable. *Laissez faire* was the order of the day.

The comparatively dark picture of social and economic conditions in 1900 suggests many excellent reasons for the subsequent "revolt of the American conscience." Mass production and new inventions and a better distribution of wealth made the United States a better place to live and work in. In spite of the tragic years that followed the 1929 crash, the United States advanced by evolution instead of revolution. Mr. Allen's summary of the new America shows us to be a nation still far removed from the millenium, but nevertheless a nation that has made heartening progress. These times are, the author concludes, "despite the stormy international skies, an age of promise."

What then are the points of particular importance for the readers from the armed forces? First and foremost, it is clear that the morale of the American people has greatly improved in fifty years. The American citizen now has a personal stake in his country unparalleled in any other nation. Nothing could be of greater importance to our military potential. At the same time the military leaders must realize the changes brought about by mechanization. Mr. Allen finds that "at the mid-century there are fewer and fewer people working with their hands, more and more people are working at desks; fewer workers with brawn, more workers with brain; fewer whose jobs require only a limited education, more who need an advanced education." Industry and business in general have grown in efficiency through professional management, although there is much to be done in the years ahead. Private business in private hands, increasingly considerate of the public welfare, has given this nation the efficiency and flexibility in production that has astounded the world in two major wars. It is not surprising that he concludes, "The United States is not evolving *toward* socialism but *past* socialism."

This by no means exhausts the features of this book especially useful to the armed forces reader. It is not all good news. The past fifty years have created problems that may cause serious trouble in the future. As Mr. Allen points out, we have a burdensome public debt, taxation that has practically reached the point of diminishing returns, our prosperity owes too much to the inflationary spiral and is therefore extremely vulnerable and our expansion of industrial capacity has probably exceeded consuming ability.

Mr. Allen is a shrewd and articulate guide through the intricacies of fifty years of economic, political, social and cultural history. In appraising the structure of our society so soon after the tumult and shouting of the half century have died away, he has rendered a valuable service to his countrymen.—Brigadier General Donald Armstrong.

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HIGHLY RECOMMENDED

DIVIDED WE FOUGHT. A Pictorial History of the War 1861-1865. Picture Editors: Hirst D. Milhollen and Milton Kaplan. Caption Editors: Hirst D. Milhollen, Milton Kaplan and Hulen Stuart. Author of the Text and General Editor: David Donald. The Macmillon Co. 452 Pages; $10.00.

In 1911, the semi-centennial of the Civil War was commemorated in various ways, but in none more enduringly and more fittingly than with the publication of a monumental photographic history of that war. Those ten volumes included nearly four thousand photographs, largely the work of Mathew Brady and his associates. This costly undertaking must have aroused some misgivings because the public had shown little interest in the military heritage of 1861-65. The editor thought that "the lack of popular interest [in the Civil War] is because this is not a military nation. The great heart of American citizenship knows little of military maneuver, which is a science that requires either life study or tradition to cultivate an interest in it."

A few years later millions of Americans involuntarily acquired personal experience in "military maneuver" and the process continued in the succeeding generation. Our recent wars may explain the ever-growing interest among Americans in the study of the Civil War. At all events it does exist and since the 1911 Brady volumes have long been out of print, the project of republishing them in a single volume was particularly desirable. Besides photographs not previously published, a number of spirited sketches of actual combat made at the front by the Waud brothers and Edwin Forbes add much to the military value of this pictorial anthology. The resulting collection has less than five hundred photographs and drawings, but what it loses in quantity compared to the earlier publication is more than made up by the greatly improved quality of reproduction and by the additions not previously available or used.

These photographs and drawings often speak far more eloquently than pages of history. The striking realism of photography is supplemented by extracts from soldiers' diaries and other contemporary documents that are as vivid and vigorous as the pictures. Mr. David Donald's running commentary on the far-flung operations on land and sea admirably integrates these quotations into a brief but accurate military history. Here it is possible to see the arms and the men of the Civil War, the roads that slowed down military movements and the transportation that used them, the field hospitals and field fortifications, the portraits of scores of generals and a few privates. In fact, these well chosen pictures enable the American of today to visualize the nature of war fought with simpler weapons, with different tactics and with far less attention to sanitation and care of the soldier than we are accustomed to.

The editors deserve much praise for bringing together on the same page pictures and appropriate narrative and for producing a pictorial history that is highly recommended to everyone interested in the war between the states.—D. A.

THE TRENT AFFAIR

ATLANTIC IMPACT 1861. By Evan John. G. P. Putnam's Sons, 1952. 296 Pages; Illustrated; Index; $3.75.

The most crucial diplomatic incident faced by Lincoln and his Cabinet was the Trent Affair, which arose when Captain Wilkes, in USS *San Jacinto,* seized Confederate commissioners Mason and Slidell from the British mail packet *Trent* in Caribbean waters. Wilkes's action violated a principle we had always supported; Britain in protesting renounced a policy she had steadfastly maintained. In the end the U. S. gave in and British honor was saved. The Confederacy got back its commissioners, but its overseas relations weren't made any happier when the hoped-for break between Britain and the U. S. was averted. Anyway, official Britain wasn't as hostile to the Union as the Confederates believed.

Into this history of the negotiations that led to settlement Evan John (who is British Army Captain E. J. Simpson) interlaces sketches of some of the persons prominent in influencing public opinion here and abroad: the harassed Lincoln, Secretary of State Seward, militant poetess Julia Ward Howe, lady abolitionist Harriet Stowe, U. S. Ambassador Charles Francis Adams; Confederate President Davis, his Secretary of War, Judah Benjamin, and General Lee; Prime Minister Lord Palmerston, Foreign Secretary Lord John Russell, British Ambassador Lord Lyons, war correspondent William Russell; Karl Marx, living in England at the time; and Albert, Prince Consort, who phrased the final note that provided for Seward the loopholes needed to frame a reply satisfactory to all hands. It's good reading, spiced with frequent salty humor and mild sarcasm that will draw many a chuckle from the American reader.—N.J.A.

MARINES IN KOREA

THE NEW BREED. By Andrew Geer. Harper & Brothers, 1952. 395 Pages; Illustrated; Maps; Index; $3.50.

The body of men from which the 1st Marine Division was drawn in World War II was described by the late Colonel Thomason as ". . . the old breed of American regular, regarding the service as home and war an occupation. . . ." There are only a handful of that breed left in the Corps, for most of them lie on Pacific islands. Their successors, regular and reserve, are the New Breed. The spirit is the same, says Major Geer, although "the uniformity of size is no longer there, nor do they have the length of professional military training."

After-action interviews of 697 New Breed Marines gave Major Greer the material for this account of their part in EUSAK's operations, from the time they became committed in August 1950, in the

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Off-Duty Reading

SHOOTIN' IRONS AND CASTIN' RODS

SOME mighty fine new books for sportsmen have appeared lately, and this looks like a good time to give the word to those of you who are hunting and fishing fans.

FOR the real, dyed-in-the-wool, incorrigible gun bug, we have to hand the prize to *Winchester: The Gun That Won the West,* by Harold F. Williamson (Sportsman's Press, $10.00). "Winchester" is almost another word for "rifle" in the American language, and will probably take up more space in the index of a book on rifles than any other single name. But we never realized until we read this book that the history of the company was just as fascinating as the history of its product. Dr. Williamson has done a magnificent job of tying together Winchester's business history and the development of its firearms. *Winchester: The Gun That Won the West* might well be called the history of a company and an outline of an era in American small-arms manufacturing. But that isn't all. There are hundreds of illustrations, many of them rare, and information and illustrations of every rifle and cartridge Winchester has produced commercially over its long history. It is just about the best $10.00 worth of gun book in print today.

FOR the big-game rifleman we recommend either of these: *The Big Game Rifle,* by Jack O'Connor (Knopf, $7.50) or *How To Select and Use Your Big Game Rifle,* by Henry M. Stebbins (Sportsman's Press, $5.00). Both authors are veteran hunters and riflemen and both are recognized authorities in the field. We recommend the O'Connor book for the man who already has a good deal of experience and may want to expand either his gun collection or his hunting experience beyond the point the average big game hunter reaches. Doc Stebbins seems to us to be more understandable to the beginner, and to have a better understanding of the beginner's problems. We don't mean that the Stebbins book is a primer (the most experienced hunter can learn plenty from either book) but for our money it is clearer and somewhat better organized.

ANY trout who may be reading this column will be sorry to hear that the trout fisherman's bible is back in print, bigger and better than ever. We mean, of course, Ray Bergman's *Trout* (Knopf, $7.50), in a new, enlarged edition. The new book includes all the development in trout fishing since the first edition was published in 1938, including two chapters on spinning, and some revision of Ray Bergman's earlier thinking. There has never been another book about trout fishing as complete as this one.

WE'D like to remind you, too, of four standard books for the shooter who wants to go beyond rifles and cartridges as they come from the manufacturer. These are *Gunsmithing Simplified,* by Harold E. MacFarland (Sportsman's press, $6.95) and James V. Howe's *Modern Gunsmith* (Funk & Wagnalls, $15.00). These two books complement each other almost perfectly. *Gunsmithing Simplified* is a book that will teach the novice the elements of gunsmithing and bring him along until he is a good, competent workman, ready for the fine points and harder jobs that Howe covers.

THE second pair of books we commend are Col. Townsend Whelen's *Why Not Load Your Own* (Sportsman's Press, $3.50) and Phil Sharpe's *Complete Guide to Handloading* (Funk & Wagnalls, $10.00). Col. Whelen tells his readers, step by step, how to handload some 40 basic loads. Sharpe assumes you know how and goes on from there as far as you want to go with him.

IF those books won't keep you busy for the next five years or so, let us know and we'll give you another installment on sportsmen's books.—O.C.S.

push to the Naktong, through Inchon Seoul, out of Chosin Reservoir, and in those heartbreaking days of Decembe Though the book concerns troops of th Marine Corps, it is a story of the infantr man in combat. That's what a Marine i essentially, by the Corps' doctrine and i action. *The New Breed* is not a unit histo as we understand the term; it is a runnin report of combat experiences, mainly of i dividual Marine ground fighters, group squads and platoons and their leaders, th gives the reader a clear understanding what the fighting in Korea is like at th foxhole level. It's gratifying to see an a thor emphasize the fine spirit of the tea that seems to animate our people in K rea. There is incident after incident mutual support, outfits plugging holes i others' lines, combined armor and artille actions, fine service by medical men, a drop battlefield supply, tactical air suppor

No Captain Flagg-Sergeant Quirt r mance here, no belittling of other service no blaring strains of the Marine Cor Hymn. Only a picture of the grim, dirt agonizing action that is the ground fighte business, whatever his weapon or uniform —N.J.A.

BOOKS RECEIVED

KOMOON! CAPTURING THE CHA ELEPHANT. By Heinrich Oberj hann. Pantheon Books, Inc. 219 Page Illustrated; $3.00. Studying the el phants in their native haunts.

THE TAMING OF THE NATION A Study of the Cultural Bases of Inte national Policy. By F. S. C. Northro The Macmillan Company. 362 Page Index; $5.00.

LES ENSEIGNEMENTS DE L GUERRE DE COREE. By Camil Rougeron. Editions Berger-Levrau 263 Pages.

THE OLD TESTAMENT: KEYSTON OF HUMAN CULTURE. By W liam A. Irwin. Henry Schuman, In 293 Pages; Index; $4.00.

THE BLACK EARTH. By Hans Hab G. P. Putnam's Sons. 311 Pages; $3.5 A novel by the author of *Ten Thousa Shall Fall.*

TELL IT TO THE CHAPLAIN. I Chaplain Robert Chapman. Expositio Press. 151 Pages; $3.00. A chaplain experiences.

THE MECHANISMS OF DISEASE: Study of the Autonomic Nervous Sy tem, the Endocrine System and t Electrolytes in their Relationship Clinical Medicine. By Joseph Stambu M.D. Froben Press, Inc. 746 Page Index; $15.00.

TIME FILLERS. By Albert A. Ostro Harper & Brothers. 134 Pages; Illu trated; Index; $2.50. A puzzle a game book to use while you are alone.

MY ISLAND HOME: The Autobiogr phy of James Norman Hall. Littl Brown & Company. 374 Pages; Illu trated; Index; $4.00.

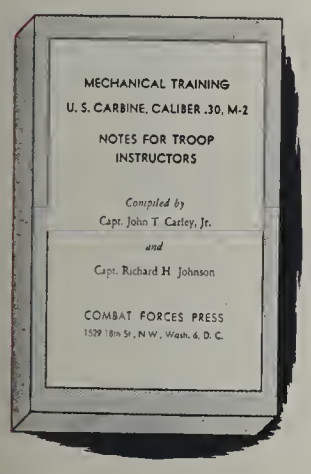
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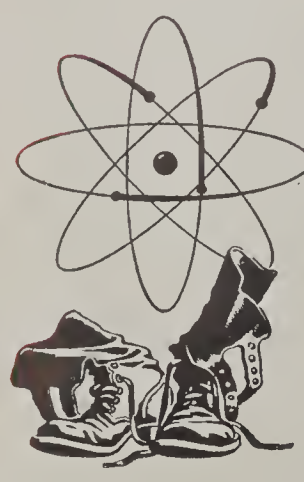
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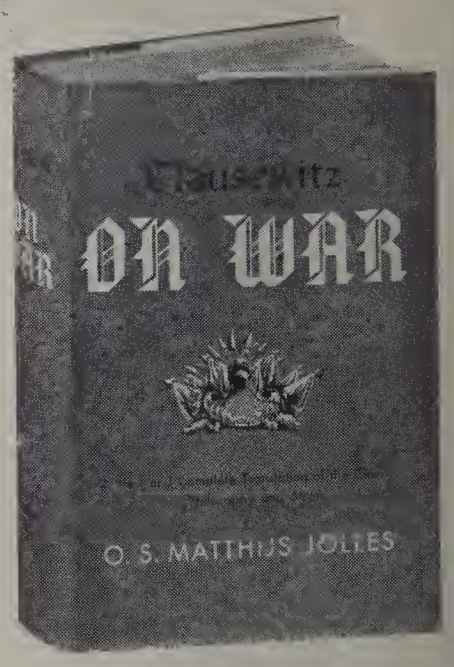
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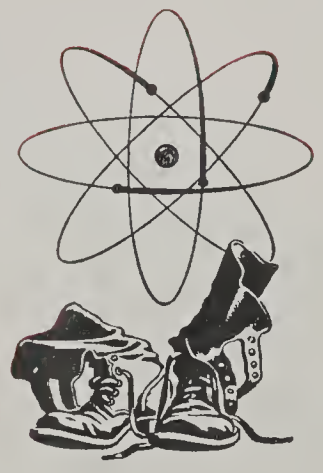


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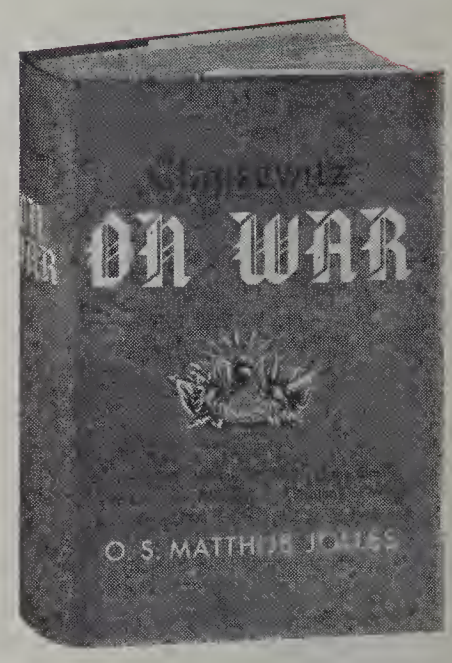
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★ To the Editors . . . ★

Stress the Fundamentals

To the Editors:

"It's Situation No. 2" by General Randle in your December issue put the finger squarely on our most pressing training deficiency. In the clamor for new weapons and more and heavier supporting fires the capabilities of the individual rifleman, squad and platoon have not been developed to their full potential. A caliber .30 bullet can kill a man just as dead as a 105 shell so the relative economy of exacting the maximum effectiveness from our small arms is self-evident.

The comparison to the training of an athletic team is particularly fitting. A coach will spend weeks drilling his team in the fundamental plays and techniques until they develop the maximum coordination and skill of which they are capable. There are certain basic military plays (not necessarily just those enumerated by General Randle) for the individual squad and platoon to which the same approach should be made. Unfortunately too many of us think that the taking of an objective just takes plenty of guts, aggressiveness, and an overwhelming preponderance of supporting fires.

Present ATPs and training policies do not provide sufficient time or latitude for the development of training methods or exercises along this line. The principal factors are proficiency of the individual in the use of his weapon, proper utilization of terrain and team work between individuals and small units. In any tactical situation there is a certain combination of firepower, use of terrain, and maneuver that will insure success. The individual soldier, squad and platoon should be so thoroughly drilled in the basic plays and use of firepower, terrain and maneuver that they will automatically and instinctively do the right thing.

It is not my intention to belittle or underestimate the value of supporting fires, but merely to point out that our present training methods do not develop the full combat capability of our individual weapons and small units. When the fires of our artillery and supporting weapons are added to supplement the efforts of small units which have been trained to develop their full capability then we will begin to approach maximum combat effectiveness.

MAJOR CHARLES G. KING
164th Inf Regt
Camp Rucker, Ala.

February Cover

To the Editors:

Just received my February issue and see you identify the gun on the cover as a 155mm howitzer doing night firing in Korea. For my part I'd hate to be using a proximity fuze on any shell fired from "that" howitzer.

After serving five years with a 155mm gun battalion during World War II, I am tempted to ask if someone isn't off base on nomenclature. What makes it more disgraceful is that you have editorial assistants who seem to be artillerymen.

R. E. SPAULDING
5617 Philadelphia Drive
Dayton 5, Ohio

• Others besides Mr. Spaulding have called our attention to the lamentable and inexcusable error of identifying the weapon on our February cover as a "155mm howitzer" instead of a "155mm gun." But to Mr. Spaulding let us say that the cover was a last-minute selection and the artillerymen on the staff saw it, but didn't have a chance to check the identifying line, dashed off by another member of the staff as the linotype operator waited for it.

Resistance Movements

To the Editors:

Colonel Edward A. Raymond in "People's War," in your December issue makes some pertinent observations on guerrilla warfare. The tone, however, seems to give guerrilla warfare the pre-eminent place in what is the much larger operation termed "Resistance." In fact, save for a passing reference, Colonel Raymond seems to lump all the activities of Resistance under guerrilla warfare.

Julian Amery, in the March 1949 issue of *The Nineteenth Century,* has attempted to advance a few general propositions concerning the theory of the principles of Resistance. His definition of Resistance may help to place Colonel Raymond's article into perspective:

"Resistance is the name which we give to operations directed against an enemy (belligerents, opponents in a cold war, malevolent neutrals, etc.) behind his lines, by discontented elements . . . The gamut of such operations is very wide. It includes revolt, guerrilla, sabotage, terrorism, civil disobedience, strikes, 'go-slow' techniques, non-cooperation, the spreading of hostile or diversionist propaganda and the harbouring of enemy agents or escaped prisoners . . . Resistance indeed differs from revolution (or counter-revolution) only insofar as its operations are supported by an external Power or conform to the general military and political strategy of that Power. By definition, therefore, a Resistance movement draws its strength and inspiration from two sources: from the local forces of which it is composed, and from the outside Power which supports it."

LIEUTENANT RIGHTER
Madrid, Spain

Scale-Model Range

To the Editors:

In the November issue on page 40, under the caption "Scale-Model Firing Range" a photograph shows men getting forward observer training, standing up to make their adjustments. This is one method we MAAG advisors are *not* teaching the Chinese Nationalists. For the observer to be taught properly, he ought to be in the position he would actually be at an OP and not standing above the target. His standing position allows him to look over the hill that he is firing at. Also if the terrain board is an actual scale model, there should be wires stretched over the terrain board for the individual placing the rounds to be correct in their location. In this way the observer will obtain a truer picture of where his rounds land in reference to the target.

LT. ARTHUR H. LINDEMAN
Army Section
MAAG, Formosa
c/o PM, San Francisco, Cal.

Noncoms

To the Editors:

Reference "What's Wrong With the Infantry" in the January issue, the Sergeant did not miss a point. I thank him for his courtesy in not laying it on any thicker about us officers. I would like him to know though, that there are a great many of us who quite agree with him, but can't do a thing about it. Unfortunately we are as beat down as he is. Our one hope is that

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there will be enough real noncoms like him, plus enough real infantry officers to hang on and we may some day be in the position to iron it out. As the Sergeant wrote, the solution is so simple. The Marine Corps has had the answer for years. I can only remind him of the motto of a real infantryman, General "Vinegar Joe" Stilwell: "illegitimi nil carborundum."

I would welcome "SFC Armored Infantry" in my outfit any time.

MAJOR INFANTRY, RA

Fort Knox, Ky.

To the Editors:

Both "Sgt. Chesty" and "SFC Armored Infantryman" (January issue) express opinions I've stated many times. In as much as I am presently a commissioned officer, these opinions have tagged me as being "Too mean to mama's poor little GI."

One of the worst brain storms the General Staff ever had was the one which came up with the small, switch-colored stripes. In that shuffle we lost the three-stripe sergeant, the man who once just about ran the Army. In my first six months of service, I didn't even know there was anyone with more authority. Now we have men who automatically, or practically so, make corporal, a grade which is now only a high ranking PFC (in most outfits they are so numerous that they are required to pull KP and other fatigue duty).

I recently served in a command where I had two excellent SFCs with six and seven years in grade, and more years of service while another nearby outfit was promoting men with less than a year of active duty to master sergeant. And all because of the T/O.

The present set-up is the result of the discovery that it is easier to change the T/O so as to make an automatic promotion than it is to get a fair pay bill.

We now have, as the Sergeant said, too many chiefs. If a man needs $300 a month to live on, give it to him, but don't make him a M/Sgt for this purpose.

CAPTAIN L.J.W.

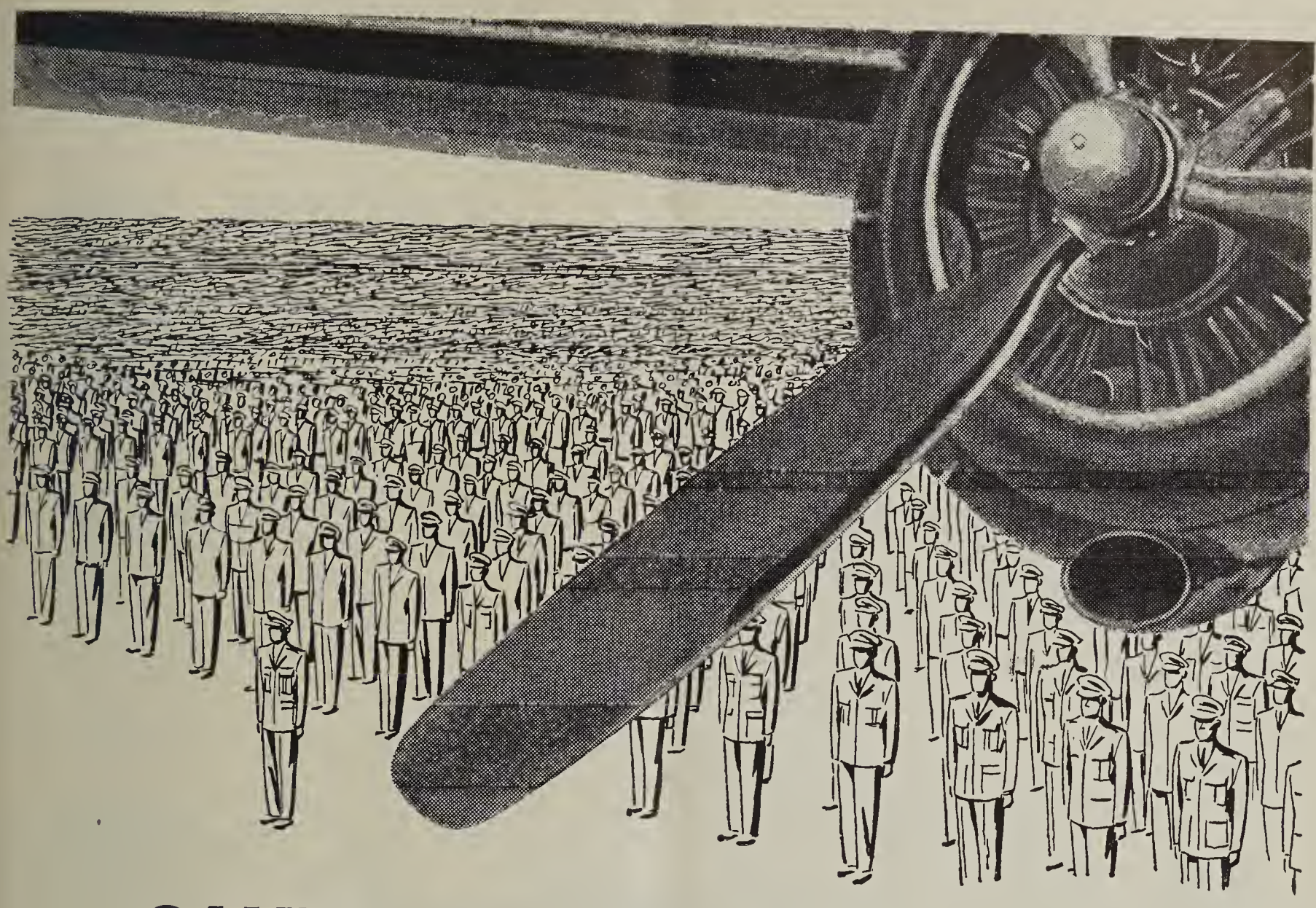
Jefferson City, Mo.

To the Editors:

"Eyes Right" to your January 1953 issue just received and read with great interest. After 11 years I still look forward to every issue.

"What's Wrong With the Infantry," was the brightest piece in the January number—along with "Iron Discipline Needed" (by Sgt. Chesty in "Letters to the Editors"). As an ex-first sergeant of an infantry company, I'll second both pieces.

We have far too many chiefs shouting orders. A first sergeant used to place a good corporal in charge and consider the job done. Now, if a corporal is selected, the "Old Man," eager to have an active hand in "running" his company, says "Put some rank in charge of those men." So after much arguing on the subject of "Who in the hell is running this outfit" the corporal goes back to cleaning the latrine or sorting



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laundry and losing a good chance to learn and to display his abilities.

One of my men was up for promotion —he refused it because "the men might not like me as well." Instead of being busted to private for a remark like that the company officers just chuckled and back to the personality contest went the enlisted men.

Ex 1st Sgt.

Camp Hill, Pa.

Combat Engineers

To the Editors:

With reference to "What's Wrong with the Infantry," by Sergeant First Class Armored Infantryman in the January issue.

Some of his remarks are true and very real. Nevertheless, I think he slighted the Engineers when he said that personnel other than infantrymen should not get combat pay and that it lowers the infantryman's morale. On this particular part I wish to elaborate with grave emphasis.

From personal experience with the Combat Engineer, I would say his role in the modern army is much more important than the infantryman's. Often he has to precede the doughboy into enemy territory. His job is twofold: first he is an infantryman, then he is an engineer. As you can readily see, he is a professional technician as well as a fighting man. I should think the words "The Combat Engineer" should always be written so as to distinguish the breed from construction engineers, and that he is just as much entitled to combat pay as the infantryman. The artilleryman also plays an important role in combat. Often the opposing force can place deadly and accurate artillery into his position which leaves him exposed to a considerable degree.

Sergeant Augustus W. Owens
Hq. Co, 6th Inf Div
Fort Ord, Cal.

Sergeants Major

To the Editors:

Not too long ago, even in my time of service, when the word was passed that "The Sergeant Major is in the area," there was a great scramble to put things in order. The First Sergeant went slightly crazy. He and the company clerk would hurry to put all records in order. The Mess Sergeant also started moving. Out on the drill field the best instructors in the company, enlisted or commissioned, were put in charge of the training routine. No one was idle. It was the same with the guard mount. The guard would much rather have the Adjutant inspect than to have that old blankety-blank of a Sergeant Major do it. Even the regimental officers hated to see him because he was responsible to two persons: the adjutant, and the regimental commander!

Now, how things have changed! Comes the time to get a new Sergeant Major, do they pick the senior NCO in the outfit? They do not. "Let's use Corporal Smerk. He knows how to type, and he's up on the latest regulations." So we have a Sergeant Major who can't give a squad *right face.*

SFC R.C.M.

c/o PM,
San Francisco, Cal.

24th Division

To the Editor:

Could you tell me if it is or would be possible to issue me another membership card? Someone stole my wallet with my pass, ration card, membership card and other documents.

I have enjoyed every issue of our magazine. I have noticed some very good articles on the 24th Division in Korea. I was in this Division, serving in the 21st Infantry Regiment, under the leadership of Lt. Col. Charles B. Smith, when the Korea conflict began. I worked in Battalion S3 section and I got to know that he was a very fine and capable leader. What happened in the 4 July 1950 attack on us by the North Korean forces in our first battle in Korea proved Colonel Smith a splendid leader.

I returned to the United States on 26 September 1951 and reenlisted for six years and returned to Far East Command 3 October 1951. I am now with the 19th Infantry.

Cpl. Edgar S. Esplin
Co F, 19th Infantry
APO 24, c/o PM
San Francisco, Cal.

• We have mailed Corporal Esplin a new membership card.

To the Editors:

I was somewhat disturbed to read a news story in which it was revealed that the United States is fast losing ground on the cultural front in Japan.

The reason is that employees of the United States prefer attending cocktail parties (as many as five or six a week) to teaching occasional classes in English and democratic procedures to the Japanese who are pitifully eager to attend and learn. The inevitable consequence is that the whole program is falling apart, and we are muffing a beautiful chance to win friends we sorely need.

An excellent solution can be found in Army history. Following the Philippine Insurrection the first English language schools for the Filipinos were taught by Regular Army noncoms.

It requires no wild flight of the imagination to assume that enough reasonably literate GIs could be found in Korea to keep the cultural program in Japan alive. Just ask a few of them if they'd like to swap their M1s for grammar texts.

Captain William C. Robinson
The Madras Pioneer
Madras, Ore.

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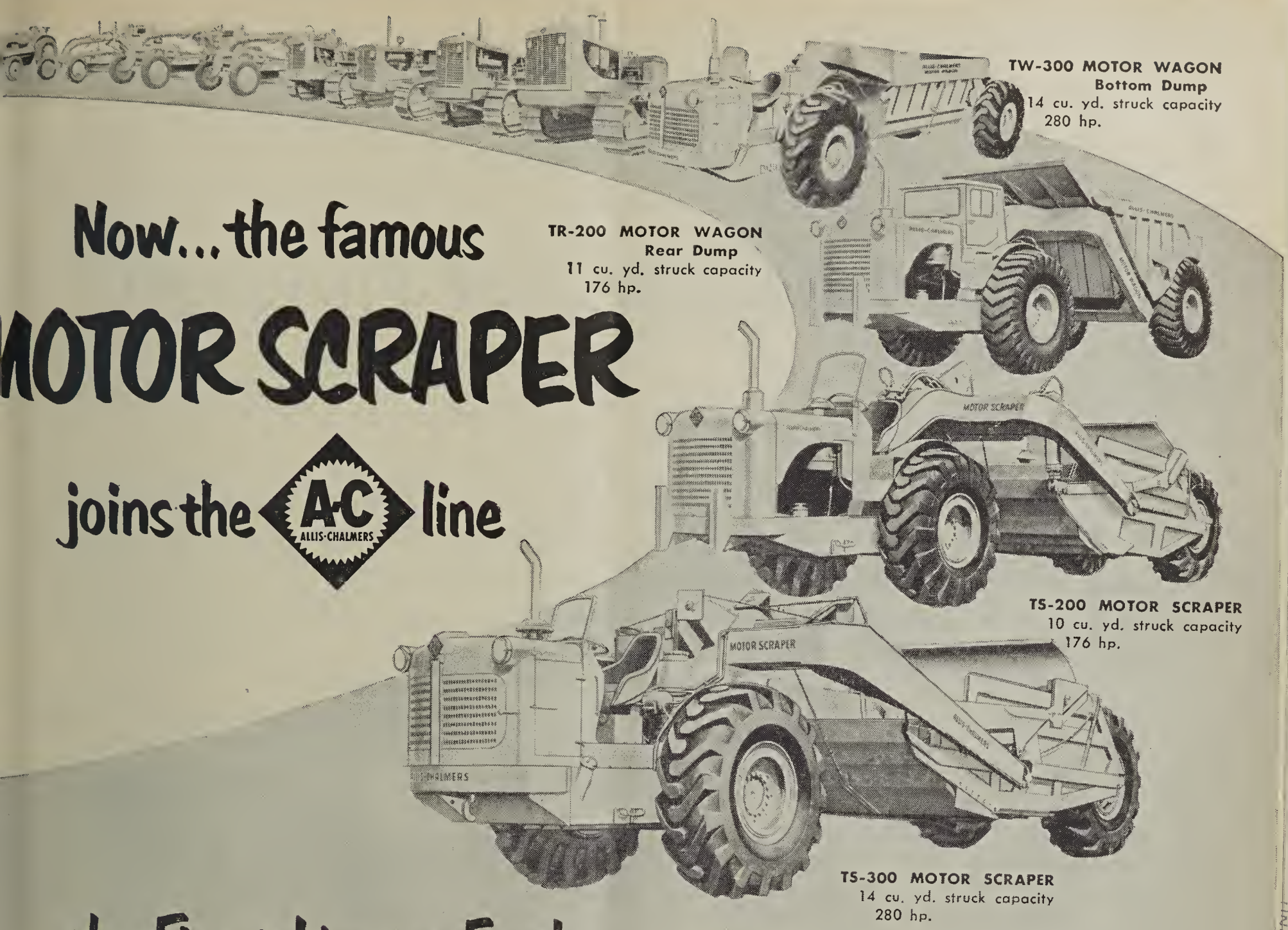
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"With Fortitude and Foresight"

IN his State of the Union Message on 2 February, President Eisenhower declared that his leadership would apply "American influence in world affairs with such fortitude and such foresight that it will deter aggression and eventually secure peace" and establish "a national administration of such integrity and efficiency that its honor at home will ensure respect abroad."

The direction this foreign policy and governmental administration will take, with special reference to the interests of military men, is outlined in the following paragraphs taken from the President's address.

Foreign Policy

OUR foreign policy must be clear, consistent and confident. . . . The policy we embrace must be a coherent global policy. . . . The policy we pursue will recognize the truth that no single country, even one so powerful as ours, can alone defend the liberty of all nations threatened by Communist aggression from without or subversion within.

OUR policy will be designed to foster the advent of practical unity in Western Europe. The nations of that region have contributed notably to the effort of sustaining the security of the free world. From the jungles of Indo-China and Malaya to the northern shores of Europe they have vastly improved their defensive strength. . . .

But the problem of security demands closer cooperation among the nations of Europe than has been known to date. Only a more closely integrated economic and political system can provide the greatly increased economic strength needed to maintain both necessary military readiness and respectable living standards. . . .

The needed unity of Western Europe manifestly cannot be manufactured from without; it can only be created from within. But it is right and necessary that we encourage Europe's leaders by informing them of the high value we place upon the earnestness of their efforts toward this goal.

Korea and the Far East

IN this general discussion of our foreign policy, I must make special mention of the war in Korea.

This war is, for Americans, the most painful phase of Communist aggression throughout the world. It is clearly a part of the same calculated assault that the aggressor is simultaneously pressing in Indo-China and in Malaya, and of the strategic situation that manifestly embraces the island of Formosa and the Chinese Nationalist forces there. The working out of

any military solution to the Korean War will inevitably affect all these areas.

The Administration is giving immediate increased attention to the development of additional Republic of Korea forces. The citizens of that country have proved their capacity as fighting men and their eagerness to take a greater share in the defense of their homeland. Organization and training will allow them to do so. Increased assistance to Korea for this purpose conforms fully to our global policies.

In June 1950, following the aggressive attack on the Republic of Korea, the United States Seventh Fleet was instructed both to prevent attack upon Formosa and also to insure that Formosa should not be used as a base of operations against the Chinese Communist mainland.

. . . there is no longer any logic or sense in a condition that required the United States Navy to assume defensive responsibilities on behalf of the Chinese Communists, thus permitting those Communists with greater impunity, to kill our soldiers and those of our United Nations allies, in Korea.

I am therefore, issuing instructions that the Seventh Fleet no longer be employed to shield Communist China. This order implies no aggressive intent on our part. . . .

Military Policy

OUR labor for peace in Korea and in the world imperatively demands the maintenance by the United States of a strong fighting service ready for any contingency.

Our problem is to achieve adequate military strength within the limits of endurable strain upon our economy. To amass military power without regard to our economic capacity would be to defend ourselves against one kind of disaster by inviting another.

Both military and economic objectives demand a single national military policy, proper coordination of our armed services, and effective consolidation of certain logistics functions.

We must eliminate waste and duplication of effort in the armed services.

We must realize clearly that size alone is not sufficient. The biggest force is not necessarily the best force—and we want the best.

We must not let traditions or habits of the past stand in the way of developing an efficient military force. All members of our forces must be ever mindful that they serve under a single flag and for a single cause.

We must effectively integrate our armament programs and plan them in such careful relation to our industrial facilities that we assure the best use of our manpower and our materials.

Because of the complex technical nature of our military organization and because of the security reasons involved, the Secretary of Defense must take the initiative and assume the responsibility for developing plans to give our nation maximum safety at minimum cost. Accordingly, the new Secretary of Defense and his civilian and military associates will, in the future, recommend such changes in present laws affecting our defense activities as may be necessary in order to clarify responsibilities and improve the total effectiveness of our defense effort.

This effort must always conform to policies laid down in the National Security Council.

The statutory function of the National Security Council is to assist the President in the formulation and coordination of significant domestic, foreign, and military policies required for the security of this nation. In these days of tension, it is essential that this central body have the vitality to perform effectively its statutory role. I propose to see that it does so.

WE must be strong in arms. We must be strong in the source of all our armament—our productivity. We all—workers and farmers, foremen and financiers, technicians and builders—all must produce, produce more, and produce yet more.

We must be strong, above all, in the spiritual resources upon which all else depends. . . .

DODGE "*Job-Rated*" TRUCKS ARE BUILT FOR RUGGED FRONT-LINE ASSIGNMENTS

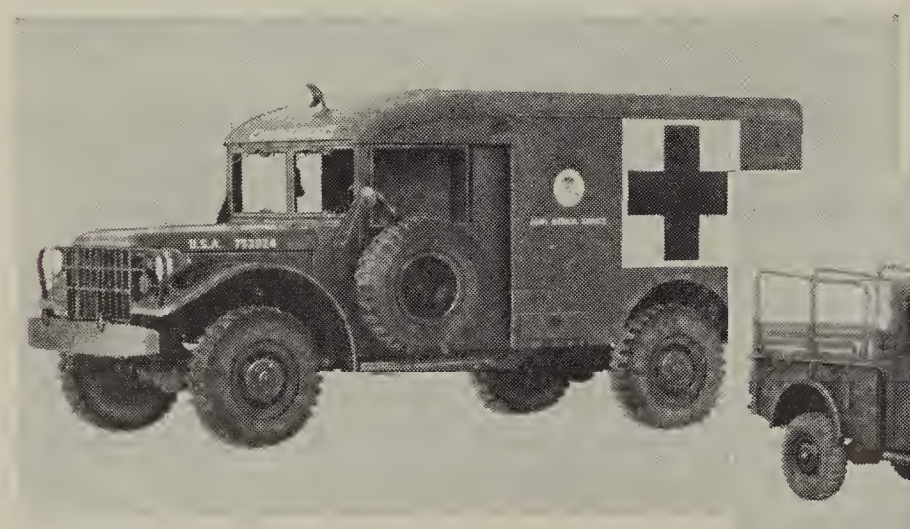


Army specialists and Dodge engineers teamed up in designing the trucks which Dodge supplies for military use in the front lines.

In building these vehicles Dodge has full appreciation of its responsibility to the fighting men who use them . . . knows that each unit must carry out its assignment without failure under the most rugged conditions.

So, you will find that exceptional *dependability* is built into every Dodge cargo carrier, ambulance, telephone maintenance truck.

You can be sure that Dodge, as a partner with the Army, is giving the men at the front the best equipment that can be built . . . trucks they can depend upon when the chips are down.



Dodge-built ambulance, ¾-ton, 4 x 4 unit. Dependability is an important reason why so many Dodge ambulances are given the assignment of evacuating the wounded from combat areas.



Dodge Cargo Carrier, sturdy ¾-ton, 4 x 4 unit for transporting materiel and personnel. Powerful and dependable, the Cargo Carrier is built to operate under toughest front-line conditions.



Cable Splicer and Telephone Installation and Maintenance Truck, another ¾-ton, 4 x 4 truck built by Dodge. Its job is installing and maintaining vital communications lines.

Right for the job . . .
in peace or war

DODGE "*Job-Rated*" TRUCKS



THE TRUCK AND THE SOLDIER

Where is the Mobility?

THE ultimate measure of impedimenta is what it does for the combat soldier. Army trucks lay claim to two distinctions. They bring him his ammo and chow, and on occasion save his dogs. The soldier's complaint against the trucks, a consequence of "late chow" and "tired dogs," is that too often they do neither very well.

Much of the soldier's grudge against the truck is born of familiarity. "You'll break a leg getting in them and the ride will wreck your spinal column." It means little to him that trucks are the basis of the Army's mobility. The six-by-six is a clumsy piece of GI machinery, eternally crowding the roads, but usually in the service of someone else. If the soldier had his way he'd probably give every man a jeep.

The Army seems to want to do it better—or at least bigger. It has gone after mobility as though the ultimate was to provide a truck for every man—whether or not the man has a destination. The ratio of trucks to troops in World War II reached a figure approximately the same (one to five) as the per capita ownership of automobiles in the United States.

Still the soldier walked.

Private A. Kinback rested his SOP pound pack at bottleneck crossroads and watched the trucks roll by. All seemed in priority rush, going one way and another, but very few appeared to have loads. "They got an awful lot of trucks," observed A. Kinback. "Whose are they?"

"They're ours," snapped Sergeant Blow. "They support us. There are prime movers for the artillery, transporters for the tanks, vans for the shops, cargo trucks for the basic loads, ambulances for the wounded, jeeps for the important and the lucky, and wreckers to keep the others on the road."

Private A. Kinback kept the obvious question to himself and stretched out leisurely against his pack. "I think I'll just wait around for a bus, Sarge."

MOBILITY is one of those intangibles open to many interpretations. Someone has described it as "the ability to move by organic means" (in this sense, a man with two good feet). Someone else has described it as "the ability of a unit to move at one time" (this could mean two platoons on foot and the third in trucks). The regulations have clarified it as "the ability of a unit to move at one time by organic transport" (that is, everyone aboard a truck regardless of how fast or how far they're going). But the real implications of mobility depend on how you look at it.

Based on experience alone, the foot soldier would never guess that in the infantry division there is about one truck for every seven or eight men. Of the division's 2,500 vehicles, only a small portion are tanks and armored vehicles. One thousand are jeeps and another thousand are general-purpose trucks of the ¾- and 2½-ton varieties. Most of these vehicles have special tasks or assigned loads of ammunition and equipment so that comparatively few are used in troop hauling. When the division moves on its own, mustering every vehicle it has, at least one-third of the troops have to walk or wait for a shuttle. In this sense, so far as troop movements are concerned, the division is at best only about sixty-five per cent mobile.

Yet it requires only 270 additional motors (about one-tenth of division vehicle strength) to transport the troops who normally walk, and thus make the division completely mobile. In this sense, before adding the extra motors, the division is about ninety per cent mobile.

Practical G4s seldom plan on using vehicles for just one lift. Three trips per day are about minimum, and all the factors of time, distance, rate of movement and capacity for load are considered. Based on these variables it is possible for the division to move itself under most conditions, and within reasonable time limitations, without additional trucks. In this sense, based on average transportation factors alone, the division is more than one hundred per cent mobile.

So, depending on how you look at it, a division may be less than 65 per cent, approximately 90 per cent, or more than 100 per cent mobile. Of course, none of these is correct, for practical mobility is not so much how many trucks you have, but how well you use them. Not so much the size of your truck-

ing force, but its ability to deliver loads. Practical mobility, the dog-tired soldier will tell you, often approaches zero.

THERE'S a big gap between the low mobility which the soldier knows and the potential mobility which the planners claim. Where are these trucks?

Somewhere between division headquarters and the rifle company the trucks seem to get lost. Somewhere at about regiment they seem to get all tied up.

Every time a truck is running empty, every time it waits for a load, every time a shop truck becomes a stationary shop, every time a truck is concealed in bivouac, every time a prime mover waits for a gun to be towed, every time a vehicle is back for repair, every time a truck runs a message that could have been telephoned or radioed, every time the wheels stop rolling, valuable mobility is lost. In many cases this "waste" is predicated on military necessity—trucks must be available to move guns on a moment's notice, traveling shops and rolling dumps are often essential to quick movement, service and repair are required if vehicles are to be kept rolling. For practical purposes, however, these represent lost transport strength.

WE have, numerically, enough trucks. They just happen at times to be going when they should be coming; coming when they should be going. It's largely a matter of control. Or, as any good taxi dispatcher might put it, having the cabs on the spot when the calls come in.

There are those who will debate the merits of organic transport over centrally controlled transportation. There are those who will debate the other side of the issue. Both will be wrong. The solution to this, as in many things, lies in taking a balanced course. A simple formula can be provided: free the organic trucks to the organic needs; pool the service trucks for the common needs.

Every military unit should have enough, but no more transport than is required to fill its *constant* and *recurring* needs. Every major organization should have sufficient transport, pooled at the higher level, to meet emergency and peak load requirements wherever they may occur. The division has enough transportation to fill both requirements, and only the distribution would seem to require alteration.

One division G4 has a solution: "We should seriously examine the question of reorganizing the transport in the division. I believe this should be accomplished without adding to the over-all vehicle strength of the combat division.

"In my opinion we want a truck battalion of at least four companies. Although the vehicles for this unit would be obtained by drawing on excess motors in various division units, it would act to increase the over-all mobility in two ways: it would release critical regimental motors for troop movements and supply in forward areas; it would provide the command with a service pool of trucks to employ at the point of greatest demand.

"I have already provisionally organized my trucks, and I'm selling the idea of a 'Division Transportation Battalion' with all that the name implies.

"The General seems receptive . . ."

EVER since the motor vehicle replaced the horse and the escort wagon drawn by four mules, there has been conflict over whether we should concentrate on getting a better *horse* for tactical maneuver or a bigger *wagon* for transporting troops and supplies. Such an elemental problem need never have arisen had not the *horse* (the power unit) been inseparably bound to the *wagon* (the cargo body) with the adoption of the standard military truck.

"This comes from confusing horses with mules," says the old cavalry sergeant. Some of the same people who would never have thought of playing polo mounted on a mule, or of putting a pinto pony to an escort wagon, selected the 2½-ton, 6x6 truck as a compromise of the many military requirements, and as the solution to all the Army's transport needs.

This was, ostensibly, a victory for the *horse* people in that six drive wheels was quite a bit of horse, but 2½ tons was a mighty small wagonload. Nevertheless, the old work horse did pretty well in World War II and it got a lot of credit. It's still doing all right on the poor roadways of Korea, and we'll probably have it with us, in one model or another, for some time to come.

In checking up, however, we find that it never was really satisfactory in either its strictly tactical or its strictly supporting role. It fitted those borderline conditions represented by secondary roads in the near-rear, but as a terrain crawler up where the going got really tough, or as a highway runner along the MSRs, it wasn't everything to be desired by a long shot.

"It would seem," says the old cavalry sergeant, "that part of this problem could be met by separating the *horses* from the *mules*." Practical commercial truckers, schooled in competitive enterprise, learned long ago that the importance of the truck lies in its adaptability to a variety of uses. It would be inconceivable to them that a large trucking firm (the Army is the largest in the world) would use the same vehicle for passenger transport, for door-to-door package deliveries, and for long-distance hauling.

Final evaluation of any vehicle must be made on the basis of some measure of performance to weight. The great power and weight of the six-by-six, as compared to its miniature load capacity, has had far-reaching effects on military operations; effects which have tended to snowball theater logistical problems. For when load space is small you require more trucks to do a given job; more trucks mean increased traffic; increased traffic means faster road deterioration; this results in ever-growing demands for maintenance; all these add up to more personnel, more supplies to support those personnel, and more vehicles to carry those supplies . . . in a never-ending spiral.

"Perhaps," says the old cavalry sergeant, "this could be largely overcome by separating the *mules* from the *wagons*." Experienced commercial truckers discovered some time ago that for economy and effectiveness you couldn't beat the tractor-semitrailer combination. Not only does it provide a greater payload-to-vehicle-weight ratio, but unlimited variety and flexibility can be achieved in the disconnected semitrailer. The tractor, running free from a specific cargo body, can come and go, deliver a load and pick up another, make a run and be ready for a second, during the time one of its semitrailers is waiting for a load.

Military applications of the principle have long been known, but have been attempted only on a limited scale. Transportation heavy-truck companies (equipped with 5-ton tractors and 10-ton semitrailers) are able to relay loads forward with a speed and efficiency not equaled by the truck companies with 2½-ton trucks. But large-scale, rear-to-front use of tractor-trailers (such as was proposed in World War II to speed ammunition supply) was aborted by the apologists of the single standard straight truck.

What seems to be needed by the Army today is at least two separate standards—light and maneuverable off-road troop vehicles; fast and economical cargo tractor-trailers. To put it another way: less truck and proportionately more load space; fewer trucks, more road space and better trucking service.



WHERE ARE WE GOING?

Is our military vehicle program just going "round and round"?

Major Paul Hunt

I WONDER what has happened to the Army's good old standard automotive equipment. It looks like we are caught in a circle of changes with no definite goal in sight and no point from which to start correcting errors.

In 1945 several desirable goals were established. Now in 1953, we review the "progress" that's been made and wonder if the 1945 goals are still desirable or whether they have become a confused dream that would make even a Buck Rogers enthusiast scream for help.

Let's look at the record and see just where we are toward accomplishing our 1945 goals.

The first major problem was cross-country mobility. The major deterrents to mobility in our World War II wheeled vehicles were concluded to be high-pressure tires, slow on-the-spot waterproofing, and underpowered vehicles.

To simplify, let's consider the Army's 2½-ton cargo carrier. World War II GMCs were basically civilian trucks with some modifications for military use. These trucks were equipped with high-pressure tires because they were physically easy to handle, cheap, and very efficient. The truck could keep rolling even if one of a set of duals went flat. Then the idea of the low-pressure tire was raised and some were used on many old GMCs. This modification was not greeted with enthusiasm by users because they lost the valuable characteristics of the small tire, and had little apparent increase in cross-country mobility.

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In 1950-51 when the interim vehicles appeared they had low-pressure tires. Again they proved unsatisfactory due to the reduction of space in the cargo bed, difficulty in handling, and lack of ability to keep rolling if one tire went flat. Now most of our wheeled vehicles in future production will be equipped once again with dual, high-pressure tires. "Around and around she goes and where she stops, nobody knows."

The World War II GMC truck could be waterproofed in 15 or 20 man-hours, using a kit. Then the Reo M34 was issued, completely waterproofed at the factory. Next, the GMC M135 came out. It requires the use of a kit, but still all units, such as the starter and distributor, were waterproofed at the factory. Now, we will accept vehicles that will be waterproofed with a kit very similar to that used with World War II vehicles. It begins to look like a game of "ring around the rosie."

INTERCHANGEABILITY of parts and accessories is another term dear to maintenance personnel. True enough, parts from the World War II GMC had little interchange with other trucks, such as the ¼- and ¾-ton trucks, but within the 2½-ton class, there was a good deal of interchange. Now look! We have the World War II GMC, the Reo, the Studebaker, and the GMC M135, plus present authority to use civilian type vehicles in many units, and all of these are within the 2½-ton cargo class. Has parts supply been simplified? Hardly.

There have been many comments and some little work accomplished to step up the power of our 2½-ton trucks. The World War II GMC had 104 horsepower, the GMC M135 has 145 horsepower. Now we all have seen the old GMC stuck but we also saw it tow a 105mm howitzer through South Pacific jungles, across Omaha Beach, through the Hürtgen Forest, and it kept rolling. We have not changed the weight of the 105mm howitzer, but the power plant has been increased by 41 hp. Why?

UNIVERSITY OF ILLINOIS

Ease of maintenance is a cry that has gone up every time anyone starts to outline vehicle characteristics. Have we accomplished much along that line in the last ten years? Let's look again at the new GMC M135 and see if it is easy to maintain:

To remove a spark plug takes a special wrench. If you want to check ignition timing, you must have special adapters for your testing equipment. If the breaker points in the distributor need replacing, you replace the complete distributor and coil assembly. Trouble-shooting is a slow, difficult procedure because every connection is a sealed, waterproofed unit. Does all of this spell ease of maintenance?

In this piece, I have tried to stay away from our more complex vehicles, such as cargo tractors, self-propelled artillery pieces, and tanks, because the questions become even more confusing about them.

I have steered clear of the cost problem as much as possible because there we must consider labor cost, material cost and inflation.

I just wonder whether our goal for automotive equipment is very clear. Few of these questions are new. There is undoubtedly a clear-cut answer for each of them, but many soldiers are asking: "Just where are we going?"

One Answer to "Where Are We Going" Is

HOW DO WE ROLL?

Lieutenant Colonel John H. Davis

AT the end of World War II there was a strong sentiment in the Army for extremely mobile, versatile wheeled transport vehicles of revolutionary design. Research and development went to work and the results were vehicles with wondrous go-ability. They were called Cross Country Carriers and lived up to the name. They were as easy to ride in as the Sante Fe Chief, they had the go qualities of a mule, high axle clearance, phenomenal sealed brakes that ignored dust, mud and salt water, and speed and power comparable to the latest motor cars. These superlative land transports (you can't call them trucks) were a delight to motor sergeants. And infantrymen (who know all there is to know about riding in trucks) found them to their liking.

To round out this story we must know what was going on in the realm of trucks for the ZI and ComZ. It was thought by many that the complication and extra cost of all-wheel drive and other features considered peculiar to tactical trucks might be unnecessary in the Communications Zone or Zone of Interior and that in those areas commercial or semi-tactical trucks could be used.

Now you can see the emergence of a pattern: Cross Country Carriers for the tactical units and a watered-down tactical truck for everyone else.

If the CCCs (I'll call the Cross Country Carriers that to save space) were so good and the rear area needs were such that the gleaming beauties fresh from Detroit could fill the bill, everything was hunky-dory. But was it?

WE know that the United Nations forces in Korea are not blessed with CCCs. In June of 1950 our plans had to be speeded up to meet a very real shooting conflict and the potential threat of a great war. But even before this emergency it was becoming apparent that the combination of Cross Country Carrier and non-tactical motor trucks was not exactly the last word. Several things were out of kilter.

For one thing, the Cross Country Carriers were so good they cost too much. Partly because they ate up critical materials such as aluminum-copper-molybdenum in quantities and required many man-hours of high-priced labor to machine and assemble them.

Also it turned out to be untrue that all-wheel drive is unnecessary in the average communications zone. In an *ideal* ComZ our highways would be paved and kept in perfect repair at all times. It would never snow and enemy air would never mess up our routes with bombs. And ComZ would never have to furnish vehicles to tactical units in forward areas.

But the real hard facts are that while ComZ vehicles may not need all-wheel drive or tactical features more than a few times in a life of routine hauling but when they are needed the need is real and earnest. For want of a nail . . .

LT. COL. JOHN H. DAVIS, Ordnance Corps, is on duty in the Office of the Chief of Ordnance.

Cross Country Carrier, 2½ ton, 6x6, T-51



It is for a very good reason that the mission is always stated in the estimate of the situation, re-stated in the intelligence estimate, and is a vital part of the operations order. The mission of a Communications Zone must transcend all other considerations. Support of forward units must be assured.

Is all this an answer to the question of whether today's wheeled vehicles meet our needs and are the best we can do at this time? In part it is. The Cross Country Carriers did meet their design goal; they proved to be outstanding in performance but we could not accept the penalties of high cost and critical materials.

The elimination of the Cross Country Carrier had to be followed with something realistic and possible. This became increasingly more important because of Korea and the obsolescence of war-weary trucks of 1941-45. New goals of design had to be set. A basis was established with the following criteria: reliability, produceability, mobility, cost and supportability.

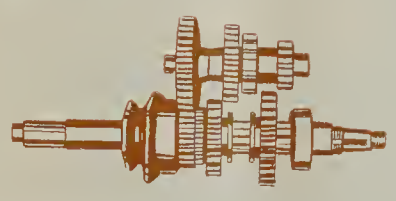
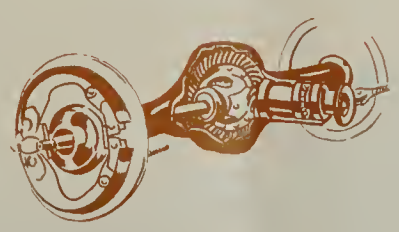
These five baselines for vehicle construction are not unlike the ones used in creating the Cross Country Carriers, but the emphasis was different. Let's see where and how.

Reliability, or dependability, were just as desirable in the Cross Country Carriers as in our present cargo trucks. A high tensile alloy can give structural integrity to a highly stressed part or an unusual design can be used—torsion bar suspension, for example. Thus, the reliability could be built-in. But in a tactical vehicle which at least tends to assume the basic configuration of conventional trucks, this reliability or "failure to fail" can be obtained by what we call "overdesign." The degree of overdesign is a result of engineering computations as applied to tactical maneuvers in various types of terrain and with varying loads. It is often said that a design that gives us more capability than the vehicle demands, creates a waste which, when multiplied by the number we produce, becomes a drain on the national economy. This like almost any other similar statement is compounded of both truth and buncombe. If a group of our most eminent vehicle designers were told to create a truck whose load capability would be no greater than three tons, and with clearly defined speed, mobility and other characteristics, there would be a fair degree of unanimity in their approach. But suppose that many of the design assumptions were as intangible as "average cross-country operation." Maximum load would be put at three tons but in an emergency the load would be all that could be piled on. Actually tactical vehicles put into mass production get their final design from test operations by Ordnance and the various Army Field Forces boards. These tests reach a compromise as to how much "overdesign" shall be included. Frequently a few relatively minor changes will greatly enhance the capability of a piece of automotive equipment. But a most important point is that when such a change is made the ability of the truck to perform reliably at lesser loads or conditions is vastly increased.

Is *produceability* an important factor? We all like to think that U.S. production is so vast that it can produce virtually any quantity of anything. In reality the old bottleneck of machine tools is always a compelling factor. Here again if we examine the case of the Cross Country Carriers versus tactical cargo trucks, we see that our capability of producing large quantities of CCCs just didn't exist in 1950 and to get the trucks we had to have quickly we had to turn to the factories already tooled up to manufacture something usable.

It is just as obvious that the trends will be reflected in future tactical vehicles. Already one 2½-ton, 6x6 truck has automatic transmission while the

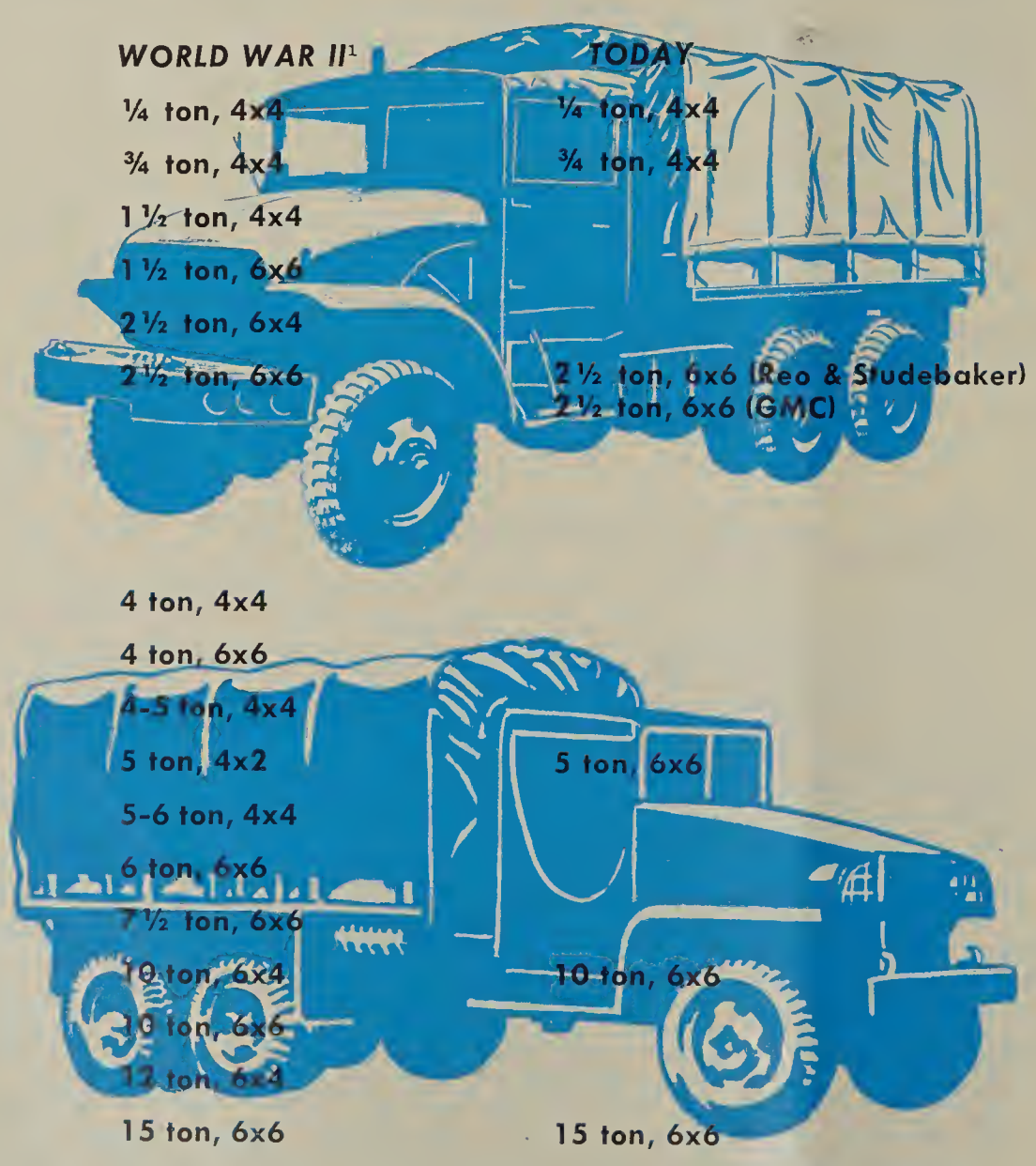
HOW THE MAJOR COMPONENTS OF THE ARMY'S WHEELED VEHICLES HAVE BEEN STANDARDIZED

Components	World War II	Today
 ENGINES	18	7
 TRANSMISSIONS	19	7
 FRONT AXLES	21	7
 REAR AXLES	16	7
 TIRES (sizes)	13	6 or 7



Truck, cargo, 2½ ton, 6x6, XM-211—with hydramatic transmission

HOW THE NUMBER OF "BASIC VEHICLES" IN THE ARMY'S WHEELED VEHICLE FLEET HAS BEEN REDUCED



[1]This is an arbitrary listing of "basic vehicles" of World War II vintage. At least one Ordnance Corps' chart lists 28 "basic vehicles."

5-ton, 6x6 trucks all have power steering. It is entirely probable that in a few years the inclusion of a conventional sliding gear transmission in a tactical truck might require extensive tooling that would place it beyond our reach. This doesn't mean that we would be unable to produce such special material. Given the time (which we won't have) and the priority (which probably will go elsewhere) these world of tomorrow vehicles could be produced today.

Mobility was the cardinal principle of the Cross Country Carrier. No compromises were accepted that would reduce that characteristic. High-flotation single tires were used to get it through mud and over bad terrain. The tire sizes and suspension were so contrived to provide lots of clearance under the vehicle. Independent suspension with torsion bar springing helped to give the clearance. Cabs were over engines to shorten truck lengths so that airborne movement was improved as that too is a part of mobility. Powerful engines drove into automatic transmissions to provide the brilliant performance that is always a basic element of mobility. As the fleet of new tactical cargo trucks was developed it was inevitable that the experience of builders, designers and users of Cross Country Carriers was applied in part.

An example was the use of single tires on the 2½-ton and 5-ton trucks when they were first produced. Then as production continued and user experience was gained it was decided that dual tires did not reduce mobility enough to counter the gain that they provided in cargo space, convenience and reduction in roadside tire changes. So the trucks were equipped with dual tires whose inherent cross-country ability is less, according to many authorities, than single tires. But it must be conceded that dual tires put more rubber on the ground than singles and thus reduce ground pressure. Such high cross-country speeds as the Cross Country Carriers could achieve were seldom if ever used so it became possible to use engines of lower horsepower and still get a good level of performance.

Mobility also includes certain conveniences, such as fording ability, quick-starting help, and other devices. Recall that we said that ComZ trucks probably didn't need all of the features of tactical trucks? Well, these are some of the features they can do without. But since a manufacturer can't foresee where a truck is going, nor can the average depot, it surely isn't practical to provide trucks from the production line both with and without these devices since it

would cost nearly as much to keep them off a truck as to put them on. However, they are available in kits and their installation is not difficult. So it seems that we have actually compromised our mobility to a certain extent. The real point to consider is whether the tactical ability of combat units has been reduced seriously. And further, whether it is better to have a truck with less go-ability or to be entitled to (but not have) the last word in wheeled vehicles.

Cost was mentioned before as being primarily a consideration of man-hours rather than materials or dollars. Production capability and cost are very closely interwoven. The need for special and/or additional machine tools can be reckoned as a need for man-hours of the most critical type at a most inappropriate time. This consideration only serves to emphasize that it frequently becomes a question of which shall we have: fancy trimmings and few trucks or large number of trucks now.

The last element in the design criteria was *supportability*. This is a term dreamed up to include ease of maintenance, reduction of the time the truck is in the shop, and minimum needs for parts. Maybe it ought to be called *maintainability*. A truck that breaks down constantly has no reliability. Here again the Cross Country Carriers provided invaluable data from a standpoint of support. They were carefully engineered to provide easy, simple maintenance or lack of a need for maintenance, which is still better. Much of what was learned on these vehicles was applied to our present trucks. All of the new trucks are good. A pretty strong statement, but true. Ride in a ¼-ton truck M38A1 (jeep to you) and see how much more comfortable it is than the old MB or GPW series of jeeps. The incidence of "sacro-iliacitis" is going down.

Did we meet our design goals in the trucks we have now? Partly. We compromised some goals to make them fit the bounds of economy and production and yet meet our needs. If you ask of what value were the Cross Country Carriers if our present vehicles meet the need, let me tell you what the Cross Country Carriers contributed. Many of developments in the Cross Country Carriers show up in the present trucks. Items too costly for our new cargo trucks are still being examined and tested with the hope that its cost may come down so we can afford it. As I mentioned earlier what is unusual and costly now may become available and necessary before long. When that happens we must be prepared to make the change.

A CONDENSED LISTING OF BODY TYPES



Utility Trucks

- Cargo Personnel (¼ ton)
- Command (¾ ton)
- Panel (¾ to 1½ ton)
- Carry-all (¾ ton)



Van Trucks

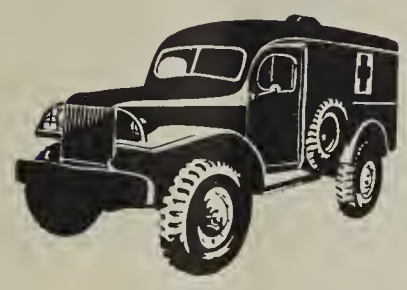
- Cargo (2½ to 10 ton)
- Shop (2½ to 5 ton)
- Medical (2½ ton)
- Expansible (2½ to 5 ton)

Dump Trucks (2 to 15 ton)

Truck Tractors (1½ to 15 ton)

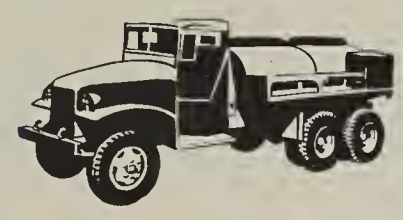
Wrecker Trucks

Crane Trucks



Ambulances

- Front line (¼ to ¾ ton)
- Field (¾ ton)



Tank Trucks

- Fuel (1½ to 10 ton)
- Water (2½ ton)

Maintenance Trucks

- Telephone (¾ to 2½ ton)
- Light Maintenance (¾ ton)



Cargo Trucks

- Weapons carrier (¾ ton)
- Cargo Personnel (¾ to 2½ ton)
- Cargo Prime Mover (1½ to 10 ton)
 - Long (std) (1½ to 10 ton)
 - Extra long (1½ to 10 ton)



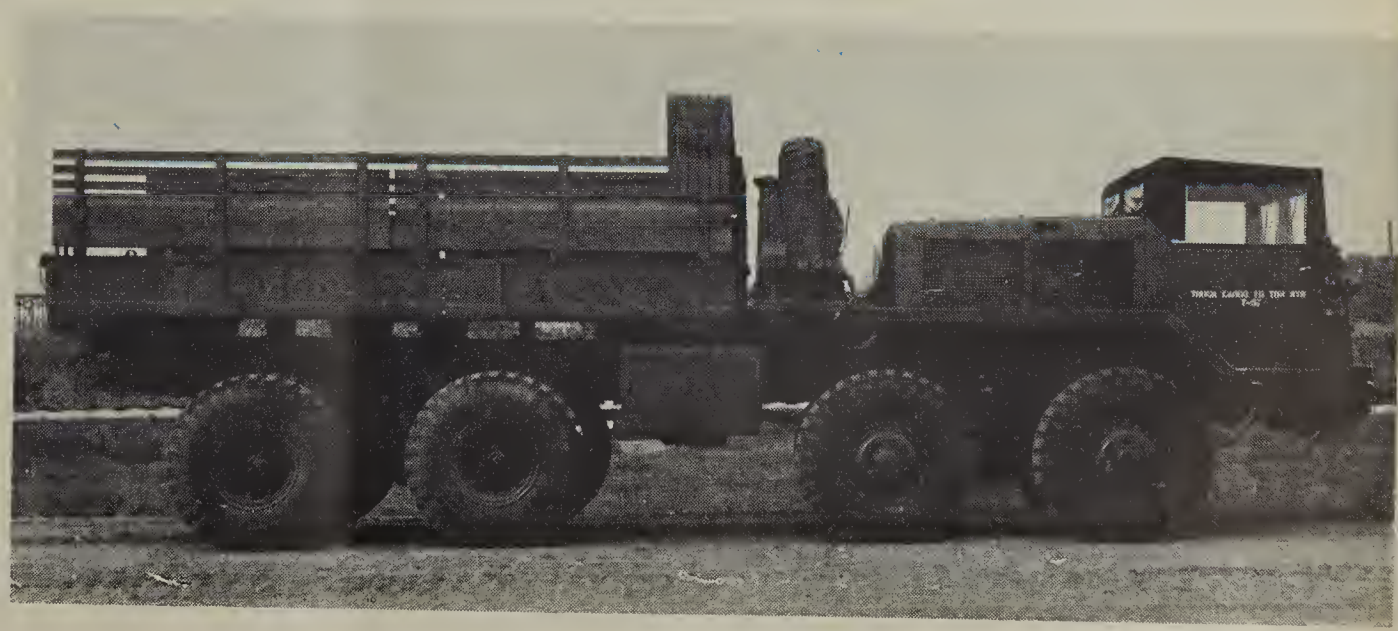
Amphibious Trucks (¼ to 10 ton)

Chassis Types (as required)

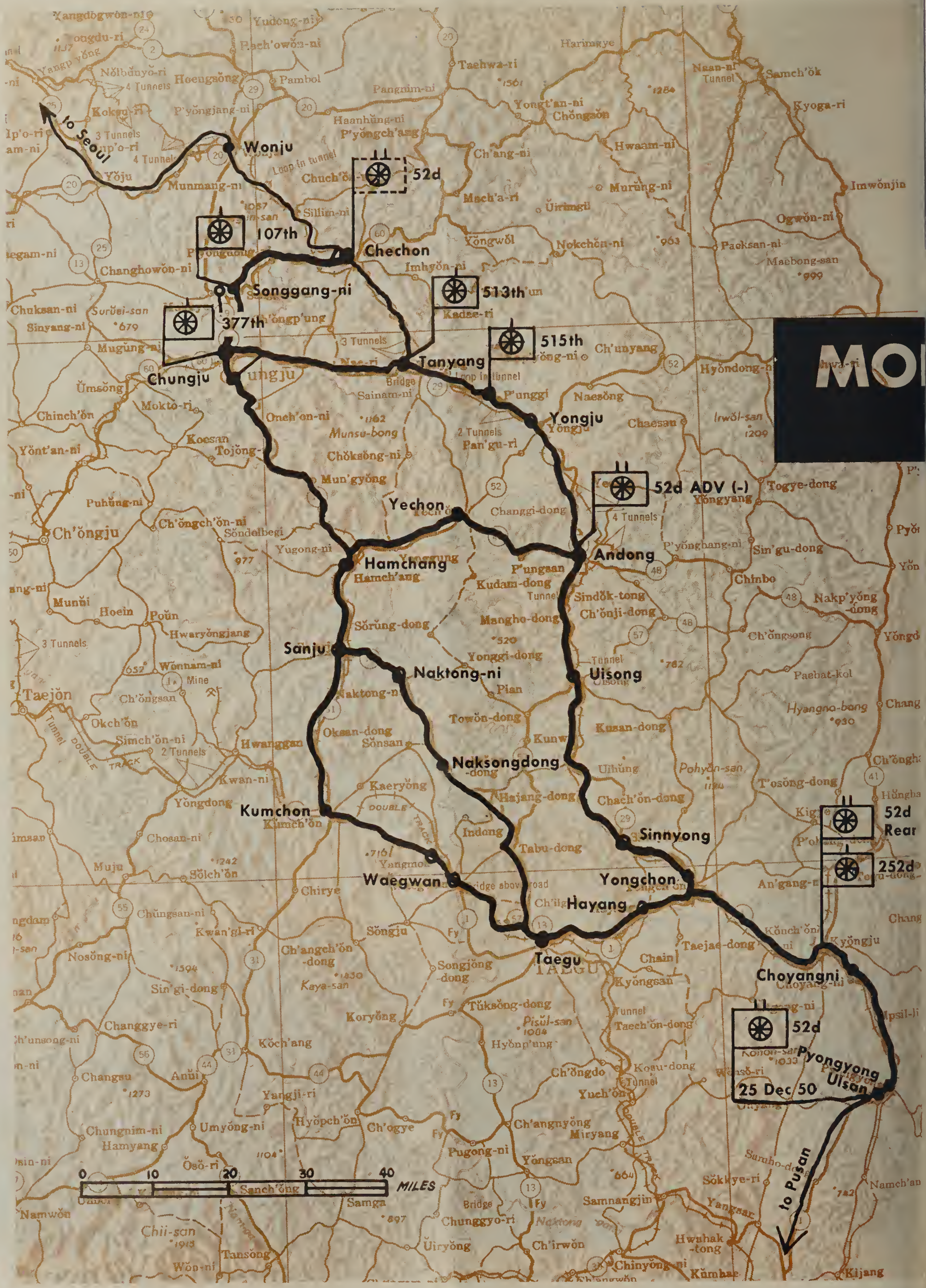
- Standard wheel base
- Long wheel base
- Extra long wheel base
- Single and dual tires

Special Purpose Trucks

- All types; as required by using services



Truck, cargo, 10 ton, 8x8, T-57


to Seoul
Wonju
107th
52d
Chechon
Songgang-ni
377th
513th
515th
Tanyang
Chungju
Yongju
52d ADV (-)
Yechon
Andong
Hamchang
Sanju
Naktong-ni
Uisong
Naksongdong
Kumchon
Sinnyong
Waegwan
Yongchon
Hayang
Taegu
52d Rear
252d
Choyangni
52d
Pyongyong
Ulsan
25 Dec 50
to Pusan
0 10 20 30 40 MILES
MO



A Transportation truck company moves combat troops from the beachhead to the front. Below: *Maintenance check point of the 42d Transportation Truck Company.*

MAINTENANCE MADE 'EM ROLL

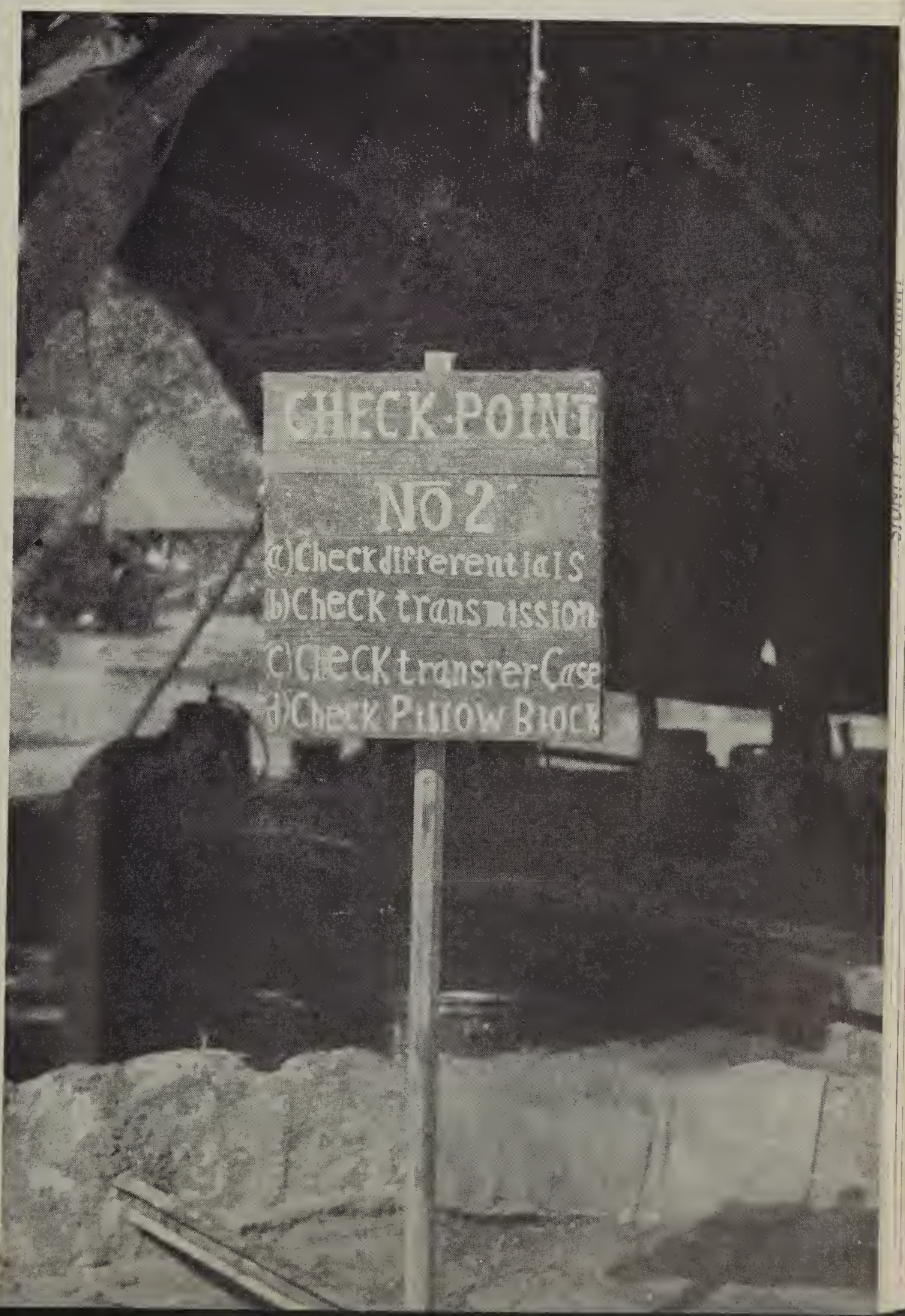
ow one outfit in Korea kept their trucks going

Lt. Col. Waldon C. Winston

ON 1 January 1951, the 52d Transportation Truck Battalion in Korea was engaged in an around-the-clock operation that didn't permit any but essential repairs and major overhauls. Time and space factors hadn't exactly favored monthly maintenance and 6,000-mile checks during the four months the 52d had been in Korea. Furthermore, when we came out of North Korea our vehicles were battered from a half dozen dock and beach loadings and unloadings.

With temperatures around 20 degrees Fahrenheit, there was an inclination to disregard good maintenance practices. However, it was gratifying to read in the reports of company and platoon officers of the truck companies of how they kept up their daily maintenance and brought their trucks out of Hagaru and Hoto-ri. They didn't lack pride in their equipment, but spare parts shortage and exhausting hours at the wheel were reflected in the overall conditions of the trucks.

All three of the Battalion's companies (377th, 513th, and 515th Transportation Truck Companies) were on the road on New Year's Eve when the Communists threatened in the vicinity of Wonju. All-night driving from Ulsan was necessary to make contact with the 7th Infantry Division unit which we were to move shortly after daylight. Drivers had to eat their New Year's turkey on the run. (I required one unit to feed their drivers from a roster as they reported back from each turn-around to make sure that each man got his New Year's turkey.) I got back to my own rear CP only four times in the next 30 days.



LIEUTENANT COLONEL WALDON C. WINSTON, Infantry, commanded the 52d Transportation Truck Battalion in Korea for many months. He is now on duty in California.



An MP points the way for a jeep coming out of the combat zone.

We hauled the 7th Infantry Division from the Yongchon-Hayang-Sinnyong vicinity to the Yongju-Tanyang-Chechon area and left them while we returned for additional loads. Later on, as General Ridgway's "Operation Killer" got under way, we hauled ammunition from Yongchon to the gun positions in Wonju. Because of congested road conditions, our turn-around covered about 300 miles (see sketch) with a few side trips thrown in. Our return was a non-stop trip over icy mountainous passes and traffic-congested narrow roads. On the first trip we left Chechon at 0800 and drove continuously except for forced halts at check points in the Hamchang Pass until 0200 the next morning. Drivers were rotated, the trucks were refueled and checked, and a few hours later they repeated the turn-around to Chechon, with a night trip non-stop on their return which detoured them from Hamchang-Yechon-Andong and back to Yongchon.

The continual demands on the Battalion's vehicles increased our maintenance problems. A disabled truck might be 150-170 miles away from homebase, alone, and with little assistance in sight.

An experience a few months earlier, while we were still at Inchon, suggested a solution. Corporal Carl H. Kimbrall was driving the battalion wrecker when he came upon a disabled truck belonging to one of my companies. He arranged a double-tow consisting of the disabled truck and the welding trailer he was towing. With this 40-foot trailer job, Kimbrall drove 170 miles, wheeling his rig around tight U-turns, over narrow mountainous roads, over rickety bridges and through deep river fords to bring the crippled vehicle safely home. This experience fathered a policy designed to save trucks and time. I directed that if a truck became disabled, the next truck following would tow it to the next unit, no matter what the distance. No truck of the 52d would be left out overnight.

Once when a 6x6, loaded with ammunition, was disabled at the approach to the bombed-out Andong bridge, I commandeered a 7th Infantry Division Ordnance wrecker and had the disabled truck towed forward to Yongju. There we found that repair parts were unavailable. My friend, Lieutenant Colonel Paul Oswald, G4 of the 7th Division, warned Ordnance not to tow the disabled truck any farther. I asked him what he would do about the ammunition. It would have to be unloaded, he said; you don't tow disabled vehicles forward. I agreed with that, but I thought the ammunition should go forward no matter what happened to the truck.

"I'll take the truck off your hands on the other side of the mountain, if your wrecker can get it through the Tanyang Pass," I told him. This was unorthodox, to be sure, but traffic here was one way —forward—and I had no idea when we could evacuate the truck if we left it behind.

The wrecker driver must have had a hell of a time towing that disabled truck across the hazardous mountain pass to Tanyang, but he delivered it. A few hours later the small detachment I had there salvaged a part from another wreck and put the truck in operation. Most important of all—when the enemy attacked Tanyang that night, the 7th Division unit in Tanyang used the ammunition that had been towed across the mountain in the disabled truck.

DURING this period X Corps was leapfrogging forward, but Lieutenant General Edward M. Almond kept his rear CP at Kyongju. For purposes of control, it was necessary for us to keep a detachment at each end of the line and at key points in between. Meanwhile each truck company was finding it more and more difficult to keep going. Running repairs and deadlined disabled vehicles were cutting the battalion's effectiveness. The battalion maintenance section was with the rear echelon and was doing very little business.

An accumulation of disabled vehicles up front could become so involved that our support of front-line units would fall down. At the time we had companies scattered all over Southeast Korea, as shown on the sketch. My most forward company was 170 miles ahead of the company at Corps' rear. The maintenance situation called for aggressive action but without interference of the support mission.

By scrounging, begging and borrowing, it was possible to keep trucks from being deadlined very long, except in cases of a major overhaul. On one occasion, we obtained an engine from the 7th Division Ordnance at Yongju, hauled it across the mountains where company mechanics installed it. Harassed company motor officers had nightmares as they struggled to keep vehicles operational. It became as impractical to evacuate vehicles to the rear as it was unorthodox to tow them forward. And they couldn't be left along the MSR awaiting assistance.

I believe that the job of the battalion maintenance section is to support attached units, no matter where they are. So as a field expedient, I put my battalion maintenance section on a "mobile" assignment. It did not operate as a roving maintenance detail making roadside repairs because the problem was bigger than that. Since the vehicles couldn't be evacuated, I sent direct maintenance to the units. The maintenance tent would set up in a company area and battalion mechanics helped perform monthly maintenance checks, working with company mechanics until they got the company back on schedule.

The Inspection Team (provided by the T/O) accompanied the Mobile

Team and performed Stateside type inspection.

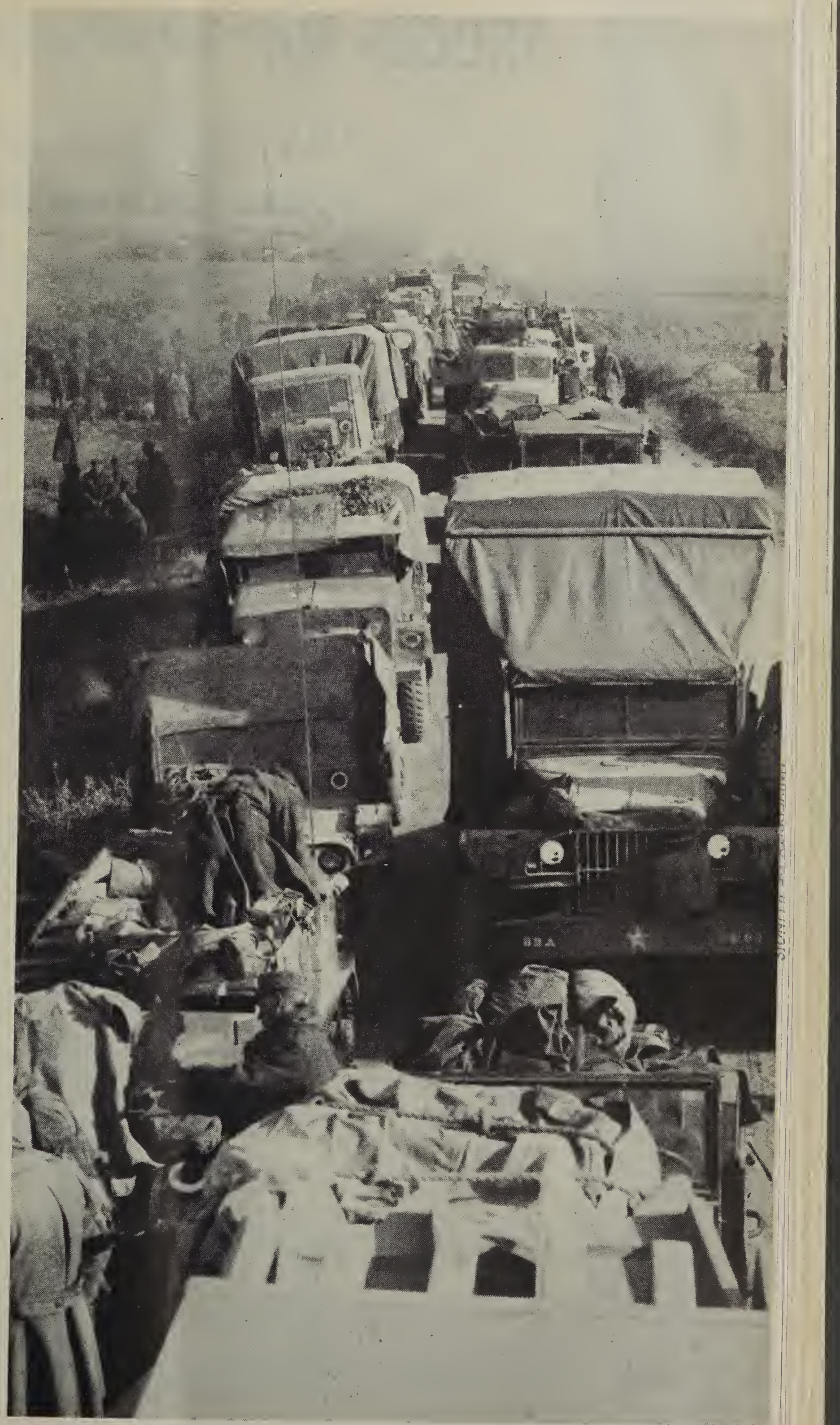
Like the early circuit-rider administering to his flock, our mobile maintenance team moved from one unit to another. It would "leapfrog" between units and help get trucks off the deadline.

THE way to use the maintenance section of the Transportation Truck Battalion, organized under T/O&E 55-16, in combat, challenged us on several occasions in Korea. Certainly, the maintenance personnel were subjected to numerous trial and error experiments, some of which were inconclusive. However, we accomplished our weekly and monthly preventive maintenance checks according to Stateside schedules and gave our morale quite a boost at the same time. We wouldn't admit that we couldn't perform our assigned maintenance functions.

Preventive maintenance always is reflected in the operational efficiency of a unit. Any unit operating around the clock will always have some vehicles on deadline. But when battalion headquarters moved to Checon and all companies were assembled in that area in March 1951 each company was able to perform its own monthly services while battalion maintenance performed its usual semi-annual (6,000-mile) checks. During March thirty-six semi-annual checks were completed without deadlining a single vehicle for lack of parts. This was possible because of close proximity of EUSAK supporting Ordnance and authority to remove necessary parts from salvaged vehicles at the Ordnance collecting point.

The performance of the 52d Transportation Truck Battalion during the period January-February-March 1951 is a compliment to its maintenance personnel who improved the overall maintenance, while the battalion was hauling a heavy tonnage of cargo. Its March tonnage was two and one half times that hauled in January. Total driven miles in March were nearly 400,000, an increase of approximately 60,000 driven miles over January. (During the three-month period, units of the 52d had rolled up in excess of a million driven miles.) It was mobile maintenance that made 'em roll!

Our methods were not a deviation from the school solution, but just another application of the SOP that the senior commander is responsible for proper maintenance of equipment. He must be alert for indications of any deficiencies and be prepared to devise methods to overcome them.



Sometimes the roads become jammed, as in this photograph shot in the early months of the Korean war when retrogade movements were not uncommon.

TRUCKS FOR TRANSPORT

Why we are using commercial types for over-the-road hauling

Colonel Ernest A. Suttles

THE motor vehicle is a weapon—like the rifle it is made to deliver a projectile. As with other weapons it comes in different sizes and calibers: some are for close-in tactical use; others are made to deliver heavier stuff at long range.

This distinction in arms is well understood; in motor transportation it has not always been so clear. Most military vehicles—the jeep, the weapons carrier, the six-by-six—are tactical weapons built for tough going over difficult terrain. Their use for logistical jobs requiring the delivery of tremendous tonnages over great distances is like using infantry mortars when the situation calls for heavy howitzers.

Yet, this is exactly what we've done in the past. Fortunately in World War II we were able to make up in mass what we lacked in transport economy. The Red Ball Express, while setting new standards for logistical achievement, became a turning point.

Behind the lightning-like advances of Bradley's three armies, the truck convoys of the Motor Transport Service rolled relentlessly day and night to keep the supplies moving. A frequently recurring pattern of military operations gave rise to the need for the service. The mobility of armies had been based almost entirely on tactical vehicles in the hands of using troops. In the conquest of enemy territory combat troops could move fast and far, but there remained an ever-widening gap between them and their base of supply.

In meeting these conditions the Motor Transport Service sought to apply principles as old as warfare in putting to use equipment and practices as modern as America's highway transportation industry.

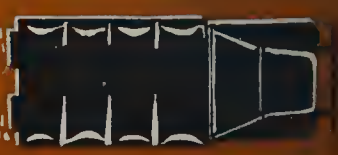
MOBILITY—the principle of war most closely associated with an army's ability to achieve victory —consists of a number of things. It includes *maneuverability*, the ability to negotiate terrain; *range*, the ability to travel far; *speed*, the ability to move quickly; and *capacity*, the ability to carry a maximum load. Only automotive transport has that combination of maneuverability, range, speed and carrying capacity essential to the many needs of the modern army. But this cannot be achieved in a single type of equipment, nor can it always be achieved by mounting different bodies on a single standard chassis. One type of equipment may have excellent maneuverability for off-road going; another may have speed and cargo capacity but be restricted to improved roads; and another may have range and speed but be limited to passenger or other service. Flexibility can best be accomplished by a number of types, each designed for specific functional purposes.

With the exception of tactical types, commercial industry has developed vehicles suitable for every military transport need. These vehicles roll off assembly lines pre-tooled for any emergency and are tested and improved every day in the tough commercial market. The Motor Transport Service turned to industry because it recognized in the military situations parallels that had already been met by the automotive and highway specialists of America. It saw in its car companies a parallel with the taxi-fleets of cities; in its truck companies a parallel with the large motor carriers; in its administrative fleet of buses a parallel with the services of transit firms; in its supplemental units a parallel with public highway and traffic agencies.

To speed its wartime operations, the service was assigned routes for its own use, from which refugee and other traffic was excluded, and over which truck convoys could be dispatched at high speed on exact schedules. Along these express routes check points were set up in direct communication with a traffic headquarters and the entire system was controlled in a manner similar to that of a modern railroad but with unlimited flexibility in adjusting to tactical change.

Making more efficient use of the vehicles on hand, the service got permission to load tactical

COLONEL ERNEST A. SUTTLES, Transportation Corps, is Chief of the Highway Transport Service Division of the Office of the Chief of Transportation.





A convoy of motor vehicles forms up at Pusan to move north towards the lines where short-handed and short-supplied UN troops were fighting in July 1950.

vehicles above their off-road capacities when used on highways. For example, the standard 2½-ton cargo truck was allowed loads up to five tons when put to highway use.

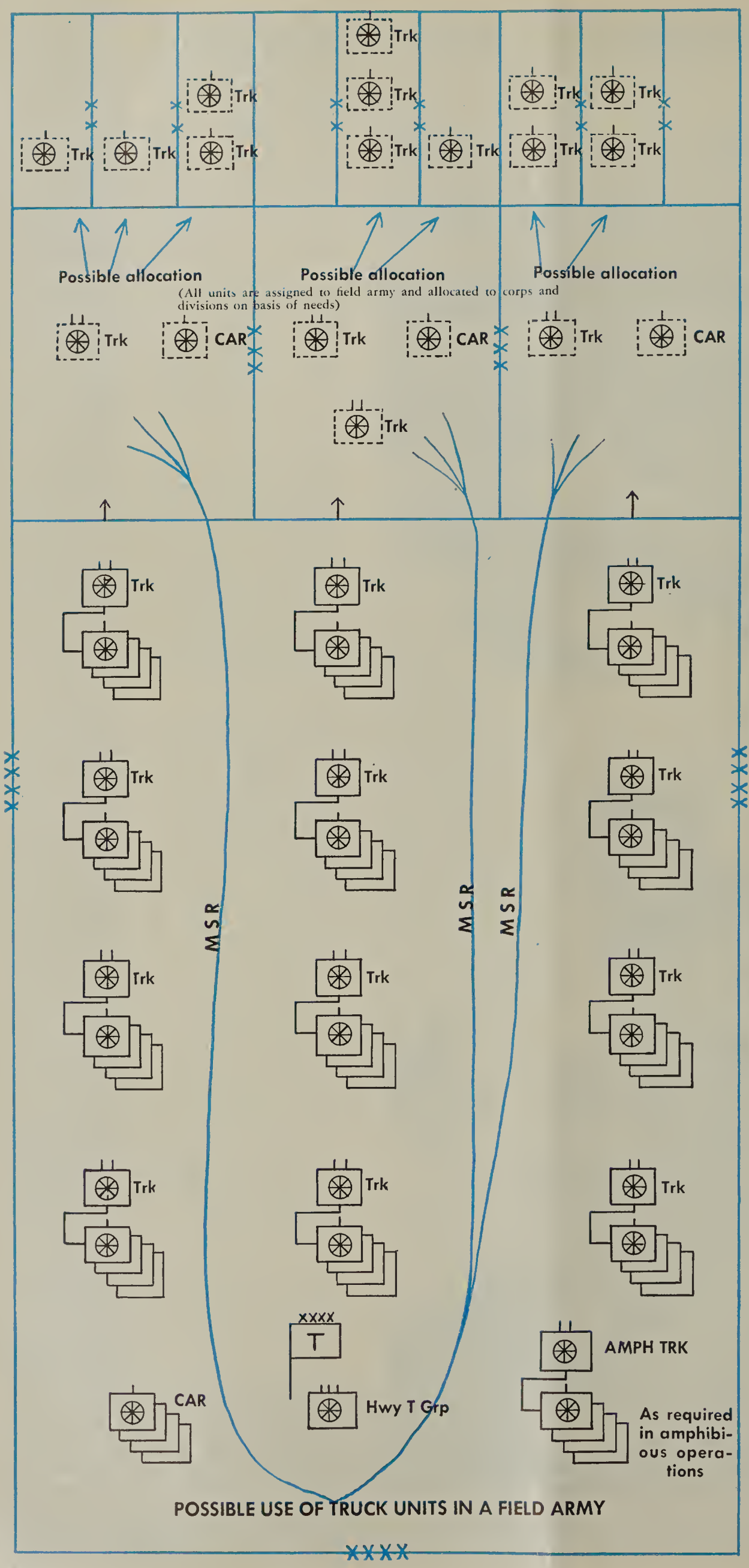
The service also asked for and later received heavy tractor-semitrailer vehicles similar to those found so successful in commercial trucking. The 10-ton semitrailer, towed by a 4-5-ton truck-tractor, was extensively used in the latter part of World War II and again in connection with the Berlin Airlift. This equipment and proposed heavier types opened unlimited possibilities for increased loads, greatly expanded line haul services and allowed drastic reductions in personnel and operating equipment.

The service further selected and adapted to its operations commercial methods which would assure the most economical use of equipment and personnel—such measures as rotating driver shifts on an around-the-clock schedule, return load programs, individual dispatch and shuttle methods for local hauls, and trailer exchange and relay procedures in accomplishing line hauls.

THESE improvements did not end with World War II. Faced with serious problems of economy at the beginning of the present period of semi-mobilization the Army looked to even greater dependence on commercial vehicles and operating procedures. For example, the cost of the 2½-ton truck had risen from $2700 during World War II to $7200 in 1950. The principal characteristics of the tactical vehicle which result in its extremely high cost are: all-wheel drive, radio suppression, deep-water fording equipment, and 24-volt electrical systems. These items are peculiar to the tactical type vehicle. They are not mass-produced for commercial consumption, and large government subsidies to industry are necessary to keep them in production. They are also expensive to operate, and because of excessive weight and limited cargo capacities are uneconomical for highway use.

The commercial vehicle, on the other hand, is mass-produced for a variety of practical uses. It weighs half as much as the tactical vehicle, has almost double its load capacity, and is highly desirable for the transportation of Army personnel and cargo. Also the cost of the commercial type vehicle is approximately one half that of the tactical vehicle.

In 1951, the Military Wheeled Vehicle Panel, convened by the Army Field Forces, recommended the "au-



POSSIBLE USE OF TRUCK UNITS IN A FIELD ARMY

thorization of commercial vehicles in the T/O&E and T/A of those units which are normally operated where the mission of the vehicles and the probable road net permits such use." The new policy was formally announced in April 1952 by Secretary of the Army Frank Pace, Jr., who directed "the prompt utilization of commercial vehicles both in the United States and in all overseas commands, to the maximum extent feasible."

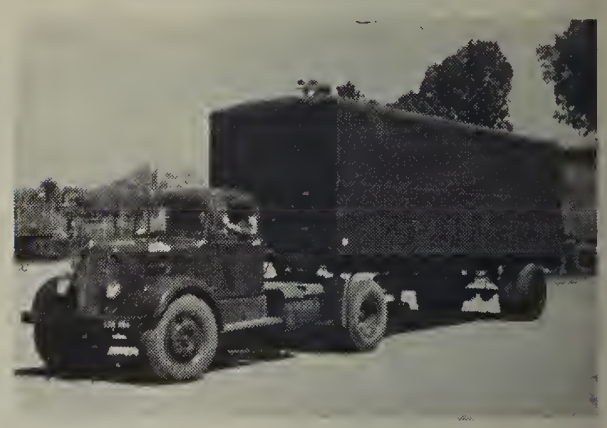
The plan is being put into effect in administrative motor pools and in service units both here and in the theaters. No sudden or mass procurement of commercial vehicles is involved, however, and the change-over will be gradual.

Transportation people see in the plan a solution to many of the military trucking problems of the past, and the trend is being reflected in new organization, new equipment and new procedures for a more effective highway transport service.

Commercial-type t



Truck tractor: 5-ton, 4 x 2
Semitrailer: 20-ton, 4-wheel van



Truck tractor: 5-ton, 4 x 2
Semitrailer: 10-ton, 2-wheel van

THE new light truck company, which will be employed primarily in the field army, will continue to use 2½-ton trucks, but the number of task vehicles is being increased from 48 to 60 in order to give a better ratio of personnel to

vehicles. Although there is a ten percent increase in personnel there is a decrease of .3 man per vehicle in the company. The lift capacity of the unit is being increased twenty-five percent; and, in an over-all analysis, this will result in approximately 40 fewer persons required to do the same job.

The new medium truck company, which will replace the old heavy truck company for communications zone hauling, is likewise being increased from 48 to 60 task vehicles. Personnel increases amount to 18 percent, but this is a decrease of .2 man per vehicle. Carrying capacity has jumped twenty-five percent. New powered vehicles for the company

use by the Army



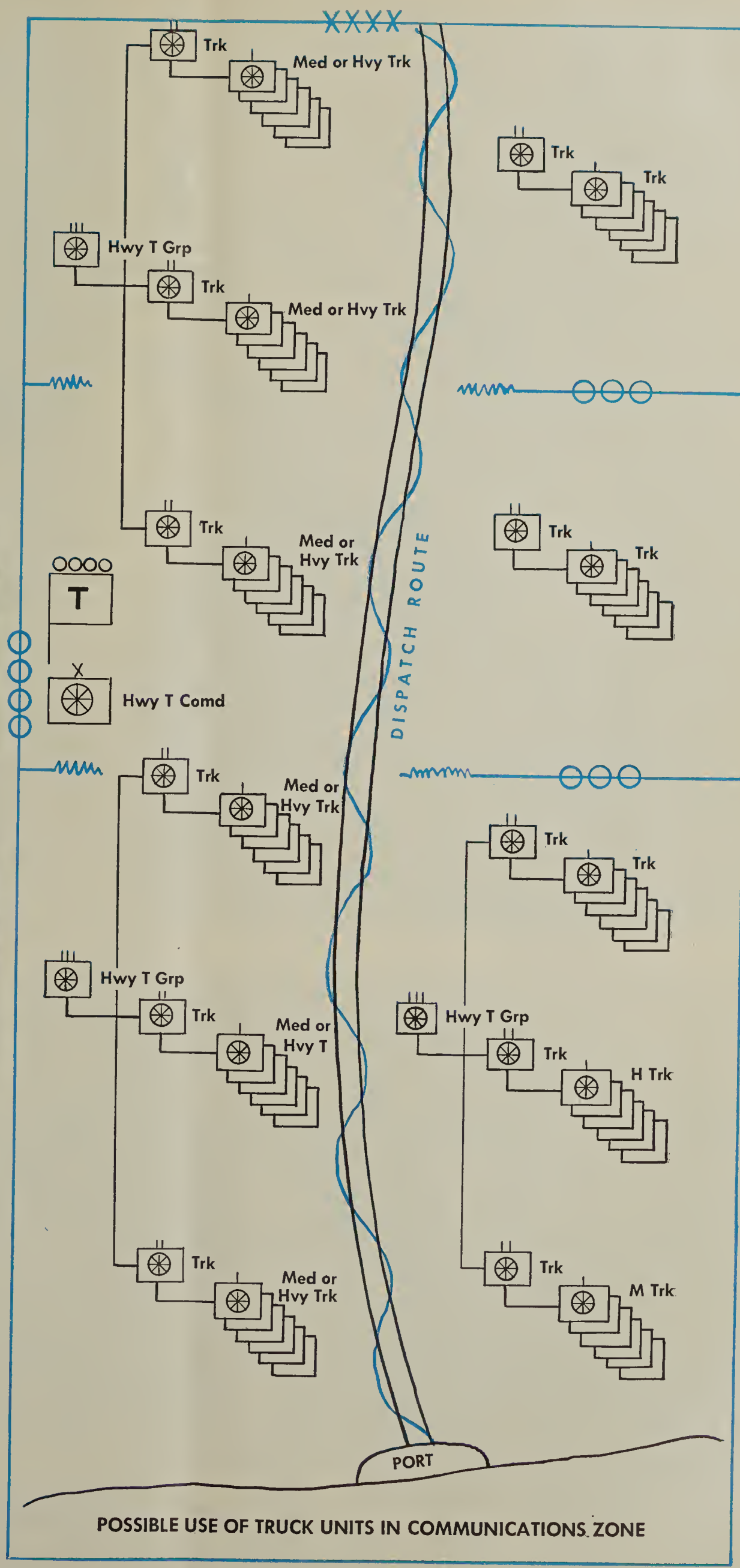
Truck tractor: 5 ton, 4 x 2
Semitrailer: 10-ton, 2-wheel stake



Truck tractor: 10 ton, 6 x 4
Semitrailer: 20-ton, 4-wheel van

consist of the 5-ton, 4 x 2, truck-tractor or the 5-ton, 4 x 2, cargo truck. A selection of 10-ton semitrailers (vans or stake and platform), 5,000-gallon bulk haulers, and refrigerator equipment will be allowed.

The heavy truck company, a completely new unit, will be employed in port and beach clearance and for long distance transportation. It will use 36 powered vehicles of the 10-ton, 6 x 4 variety (truck-tractors or straight trucks). When equipped with truck-tractors it will have 20-ton stake and platform semitrailers or vans, depending on the



POSSIBLE USE OF TRUCK UNITS IN COMMUNICATIONS ZONE

type of loads to be hauled. For the transportation of persons the unit is authorized 37-passenger convertible buses allowing it to move 1332 troops with their equipment in a single lift.

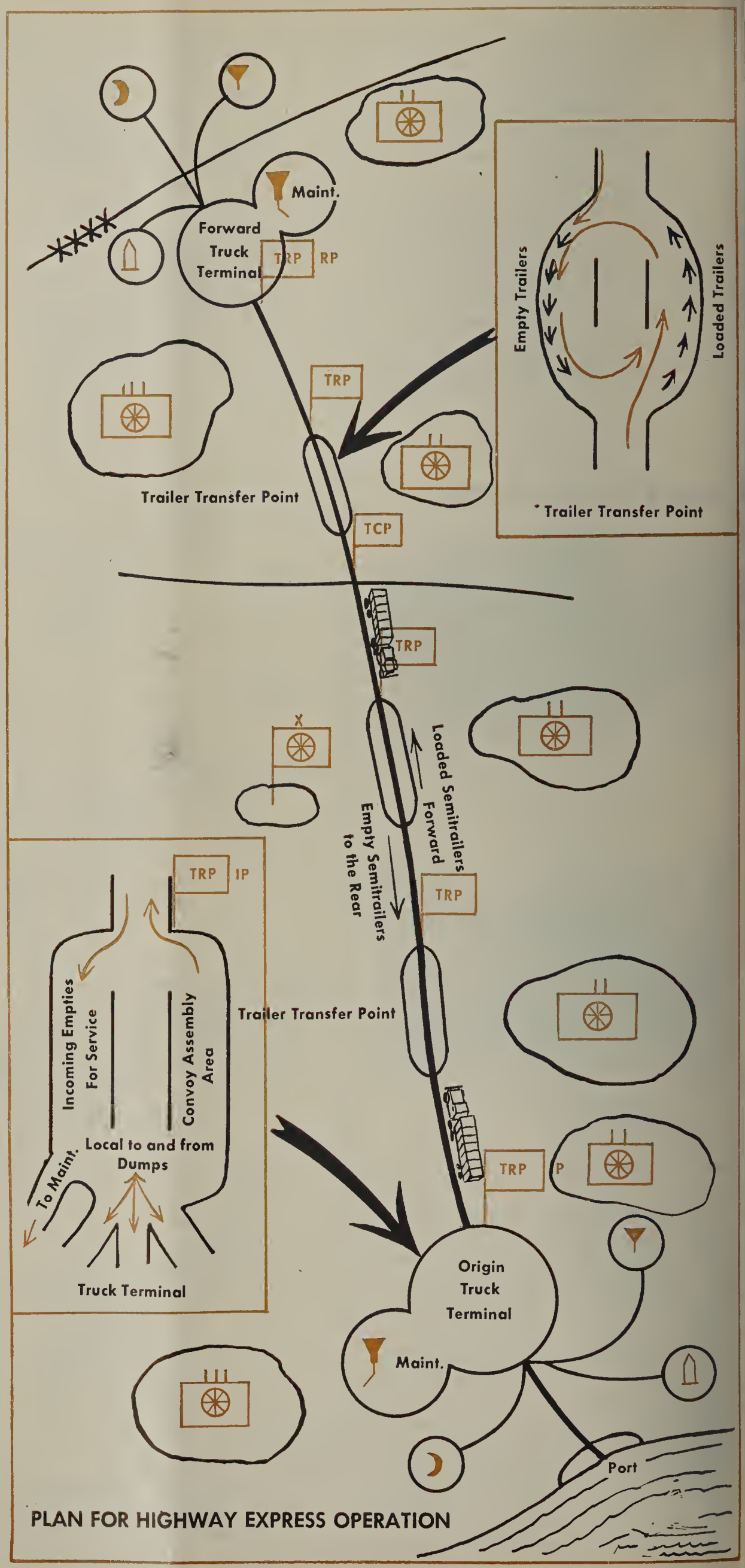
Using the same situation that existed in Europe in World War II, but employing latest methods and equipment, it can be shown just how many troops and trucks would be required to do the same job today. The results are staggering.

The original Red Ball had 20,000 officers and men; a similar operation today would require only slightly over 5,000. This is a saving of roughly 75 per cent —almost an entire division carved out of communications zone excesses and freed to fighting jobs! The original Red Ball had some 5,500 self-powered vehicles (primarily 2½-ton trucks); a similar operation today, employing large capacity semitrailers, would need only 1,150 truck-tractors. Here again, a saving of nearly eighty percent. Imagine the effect of such savings, once they are consistently employed, on the defense economy and the manpower pool! On the division slice and the replacement stream! On our combat efficiency! On the enemy!

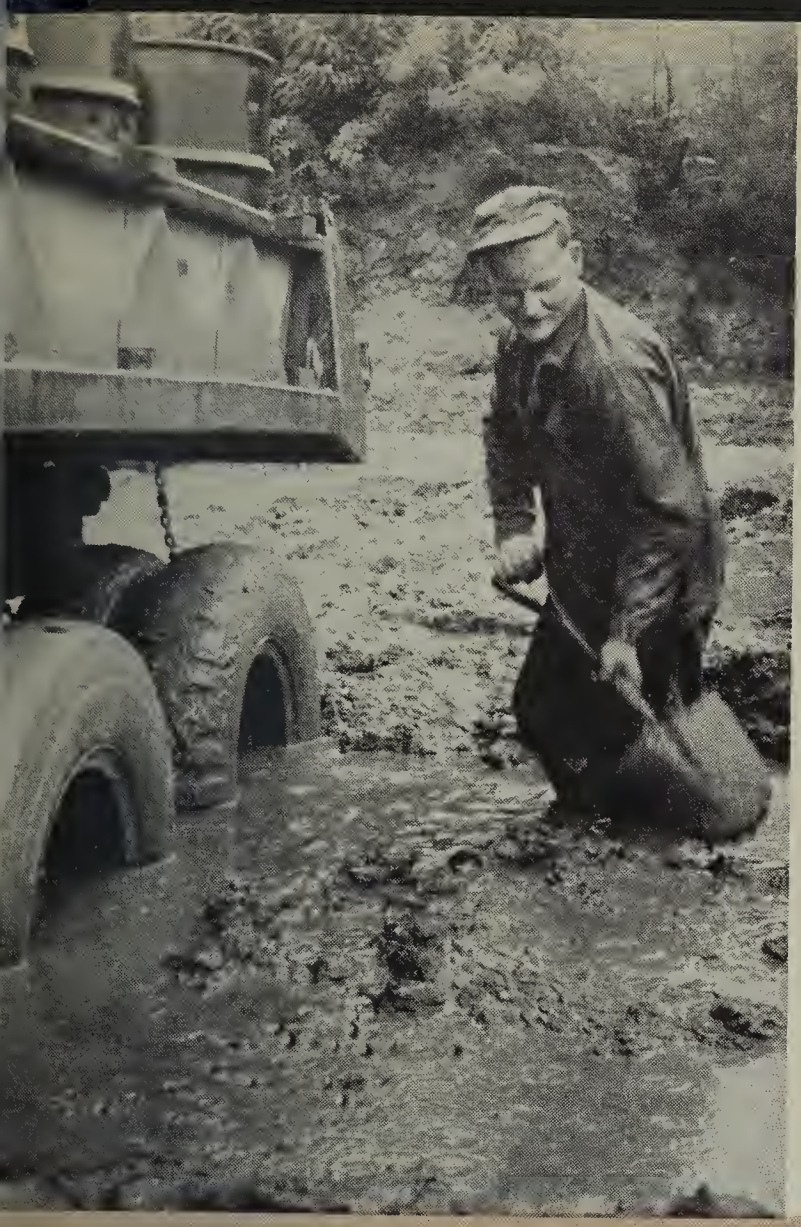
In military logistics you use the right tool for the job—just as you use the right weapon in combat.

PLAN FOR HIGHWAY EXPRESS OPERATION

Highway express operations are planned for speedy delivery of heavy tonnages through the communications zone. The dispatch routes will be closely scheduled and controlled. Employing tractor-semitrailer equipment, one type of operation is set up as a relay with truck terminals at either end and trailer transfer points located along the route. At the origin terminal, shuttle tractors take empty semitrailers to surrounding dumps and return with loaded ones which are grouped in assembly areas according to priorities. Line tractors pick up the trailers and move them forward a half day's run to first transfer point where they are exchanged for empties on the return journey. Tractors of the second leg carry the loaded trailers on to next transfer point and the relay is continued until arrival at final terminal. Here the procedure is reversed. Terminal tractors take trailers to forward dumps for unloading and return with empties from previous trips. In this type of operation the power units sustain no delay due to loading of semitrailers and the entire operation is greatly expedited. The procedure requires close coordination of fueling, maintenance, messing and traffic control activities. A dependable communications net is essential.



PLAN FOR HIGHWAY EXPRESS OPERATION





WHERE TRUCKS ARE, THERE MUD IS ALSO

Motor vehicles draw mud like the Cavalry used to draw flies. And so a lot of effort by everyone from drivers to construction engineers has to go into combating mud. These photos from Korea are typical.

Above: a driver digs himself out. *Opposite:* an engineer tractor hauls in some fill. *Below:* rocks and timbers repair a culvert.




IC-X
135-5
3-I

Vehicles for the Infantry

They need to be light, quiet, low-silhouetted

Majors William R. Hughes and Larry W. Coker

"INFANTRYMEN still walk most of the time," said the sergeant, and he was very right. The infantryman's job in war hasn't changed, despite what you read in the comic books. The infantryman still has to get in close to the enemy and knock him out. And to do that he must fight on foot. But thanks to motor vehicles he can now move faster to the line of battle and with greater assurance of getting there first.

When the infantryman moves long distances (and when he's not walking) he usually goes by truck. It's also the truck that brings up the infantryman's food, ammunition, supplies and hauls his support weapons. Trucks are used for command and reconnaissance, to evacuate the wounded, to haul kitchens and a multitude of other things essential to infantry.

The trucks that do these jobs are reasonably dependable and rugged. But do these general purpose vehicles meet the infantry's needs? Would vehicles designed for infantry use be more satisfactory and economical in the long run? We won't try to answer these questions at this time but instead will take a look at what kind of vehicles the infantry needs.

As you read the following list remember that these are characteristics that apply specifically to trucks for the infantry.

(1) Low silhouette. The lower a vehicle's silhouette the farther "forward" it can go and conse-

MAJORS WILLIAM R. HUGHES and LARRY W. COKER, Infantry, are on the staff of the Automotive Department of The Infantry School, Fort Benning, Ga.

JEEPS JAM THE APPROACH TO A RIVER FERRY IN KOREA



Jeep and trailer overloaded? It all depends upon—you guessed it—the situation. Caption says this was a patrol striking into enemy territory in Korea.

quently the "haul" distance between the vehicle and the combat line is shortened. Also a low silhouette makes camouflage easier. A low silhouette is a "must" for the infantry vehicle.

(2) Cross-country mobility. If vehicles are to go forward then they've got to be able to move over rough ground. The less vulnerable the vehicle is to "bad" terrain, the more valuable it becomes to infantrymen.

(3) All-wheel drive. This, of course, increases a vehicle's maneuverability.

(4) Lightweight design. Lightness contributes to cross-country mobility (and helps eliminate such things as getting mired down in mud). Lightweight design materially increases the value of a vehicle to airborne infantry, permits manhandling over obstacles and during amphibious operations.

(5) Rugged, durable and dependable. This is plainly needed. The front-line soldier doesn't have a lot of fancy gear nor the time to fool around with a delicate, temperamental vehicle.

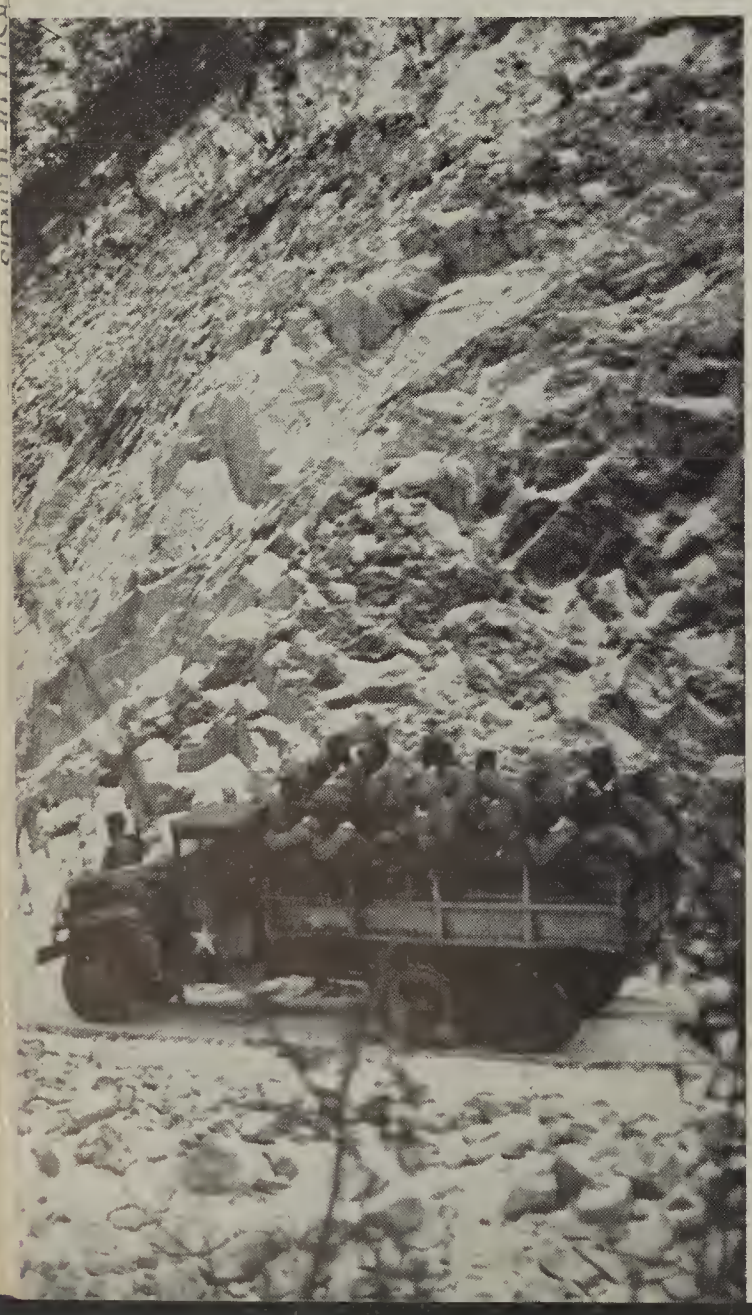
(6) Simplicity of design. The infantry needs a truck that is easy to maintain and has interchangeable parts and unit components.

(7) Low noise level. We don't want the enemy to hear us coming any more than we want him to see us coming. Silence (or near silence) is still a major part of the element of surprise.

(8) Fording capacity. Battlefield mobility demands tactical vehicles that can ford. This must be kept within reason, say a depth of three feet for a period of five minutes. Since infantry usually is the first to cross the rivers and streams it generally has to do it on its own.

(9) Economy. Low initial, operating and maintenance costs, plus fuel economy. If a vehicle "overeats" gas and oil the supply problem increases and the value of the vehicle decreases proportionately. More miles per gallon is what we need.

In the early days in Korea trucks moved men fast to plug holes in the lines.



THESE are characteristics we would like our infantry vehicles of the future to possess. These characteristics must be kept in mind when we discuss our present family of general purpose vehicles.[1]

Infantry vehicles will serve us better if they are economical and have interchangeable parts. This has long been our goal and results of study along these lines since 1945 have been a major consideration in arriving at a family of vehicles. It can be seen that the present family of vehicles comes considerably closer to meeting this goal than have any previous motors.

Examine the two parts of this goal in more detail:

Interchangeability of parts.[2] This contributes to ease of maintenance and requires less stockage of parts in forward echelons. It makes maintenance easier and in effect encourages maintenance. The over-all result may well be to prolong the life of the vehicle.

Economy. Vehicles should have a low initial cost and be economical to operate. The use of interchangeable parts should reduce maintenance costs by saving time, money and personnel. It's interesting to note that only about 10 per cent of the personnel in an infantry regiment are occupied with maintaining or driving vehicles.

A glance at the modifications that have been made to the "M" series of trucks since World War II is revealing.

24-volt electrical system. This sys-

Tank-riding infantry is SOP in some situations.



[1]This group includes the M38A1, ¼-ton; the M37, ¾-ton weapons carrier, and the 2½-ton M35, the latest T/O&E authorized cargo carrier. The M135, M34 and M211 are versions of the 2½-ton truck currently being produced and all are standard.

[2]The parts referred to fall into the general category of accessories. Examples are: generators, batteries, blackout lights, and the instruments that make up the instrument panel.

tem has been standardized for all vehicles. The 24-volt system provides a greater source of power and, of course, reduces cold-weather starting problems.

Waterproofing. Breather systems, and waterproofing almost make amphibian vehicles of all trucks.

Standardized instruments and lights. Dash instruments, blackout lights and similar parts are now standard for all vehicles, tactical or administrative.

Front-wheel drive. We no longer have to depend on a 2½-ton cargo truck driver's knowledge of when to engage front-wheel drive. It's done automatically.

Hydramatic transmission. The hydramatic transmission on the M135 and M211 eliminates gear shifting.

Compressors. The 2½-ton cargo trucks carry their own compressors which provide air for inflating tires and the air used by the brake booster system.

These all improve our trucks and make each a more versatile and useful vehicle, but from the infantryman's point of view they don't quite add up to the vehicle he needs. The "all-purpose" idea doesn't quite fit infantry's requirements. Let's take a look at these vehicles.

¼-ton truck (M38A1). The jeep was originally designed as an all-purpose utility carrier for infantry combat use. Today the jeep and its ¼-ton trailer is the standard ammunition carrier. It also is the weapons carrier and ammunition resupply vehicle for the battalion support weapons (caliber .30 heavy machine guns, 81mm mortars and 105mm recoilless rifle).

It serves infantry units satisfactorily as a carrier and for command, communication, evacuation and reconnaissance purposes. But it is still too heavy to be manhandled over obstacles (as we grow more airborne conscious it will undoubtedly be lightened), it lacks quietness, low silhouette, maneuverability and payload (notably ammunition) capacity. (A 2,625-pound vehicle carrying an 800-pound load [cross-country] is not efficient enough.)

¾-ton, M37. This vehicle is used to transport the infantry's 4.2-inch mortars and 75mm recoilless rifles and while useful, it does have many undesirable characteristics. It's too heavy, its silhouette is too high and its bulk carrying capacity is too limited. With a gross weight of 7,600 pounds it can carry only 1,500 pounds. It's too much vehicle for the job.



The Weasel is of use to infantry under some conditions, but it has its limitations

2½-ton cargo, M35[3] (dual-wheel flat-bed modification of the interim M34). This is the workhorse of the infantry and with the modifications mentioned earlier, driver training is made easier and there is less driver abuse. These 2½-ton vehicles have good cross-country mobility, reasonable ruggedness and are excellent as highway transportation. Whether or not the hydramatic transmission of the M135 and M211 will provide longer life to the vehicle is not yet known. But these new vehicles are bigger, heavier, more noisy and more expensive (both in first cost and in operating cost). It's unfortunate that they aren't supposed to carry payloads heavier than World War II models.

THIS critique of existing motor vehicles seems to be an appropriate place to discuss one of infantry's most pressing needs—a self-propelled mount for recoilless rifles. Recoilless rifles of various sizes are serving infantrymen well. They give some much needed close-in antitank protection (but aren't substitutes for tanks). Recoilless rifles are heavy (even the 75mm is too heavy to be man-carried for any distance with speed) and consume heavy ammunition at a rapid rate and require rapid mobility on the battlefield. So a self-propelled mount that is compact, has a low silhouette and is highly maneuverable would be valuable.

In many cases today's family of infantry vehicles are only modified models of those used in World War II. In a number of instances they are more expensive, heavier, have a higher silhouette, are less economical to operate and lack adequate payload capabilities. These vehicles are all superior in quality, but they are not *infantry* vehicles in a functional sense. We believe that infantry vehicles, light, quiet and low-silhouetted, are needed if infantrymen are to get where they're needed, when they're needed and with the firepower that's needed.

[3]The M135 and the M211 are now in production. The M135 is the successor to the World War II, GMC 2½-ton cargo vehicle. The M211 is a modified M135 with dual wheels and a flat cargo bed.



THE TRUCKMAKERS AND THE SOLDIER

. . . more than just a customer

K. T. Keller

THE mobility that permitted our World War II armies to move fast and deep into enemy territory had its origins a decade before Hitler moved into Poland. In that decade America put its army on wheels. It motorized its combat forces to a point exceeding that of any army in the world. It developed motorized transportation that was so vast and flexible that it could stretch supply lines hundreds of miles forward and maintain major forces in the field—even such large armored forces as General Patton's Third Army could be supplied with hundreds of tons of food, fuel and ammunition over hundreds of miles every day.

This achievement gave our ground forces in all theaters of the war freedom of decisive movement in combat, swift communication and transportation, and tactical flexibility enjoyed by no other fighting forces in the world.

Today our Army continues to maintain its superiority in military motorization.

It is not surprising at all that our military planners and leaders should have outpaced all others in their adaptation of the motor vehicle to military transportation. As Americans they saw the potential of the truck in military service as fully as other Americans who were developing the automobile and truck into absolute necessities of modern American life.

And behind this revolution in ground combat and transportation lies the American automobile industry.

America's army on wheels has become possible because of our country's great, peacetime developed automotive production facilities; an enormous know-how in volume production of internal combustion powered vehicles; the biggest commercial truck building operations in the world; and continued liaison between military users and civilian producers.

The wheeled military vehicle, in the quantity and quality that startled our pleased allies and unbelieving enemies, supported our vast fighting forces all over the globe, was and is possible because of these factors.

Today, neither our military forces in the field, nor our civilian economy at home, can dispense with motor vehicles. And both are the greater and stronger for having so broadly utilized this modern tool of living or fighting.

What is it about our automobile industry that has enabled it to help our Army attain its commanding lead in military transportation?

After all, the automotive engineers in many other countries may be as inventive, industrious and forward-looking, as are our own. And these countries doubtless have military planners and leaders who appreciate the power and flexibility of motor vehicles.

Mr. K. T. Keller is Chairman of the Board of Chrysler Corporation and Director of Guided Missiles for the Secretary of Defense. An automobile production man since 1906, he came up through the ranks, so to speak. His early experience was with Westinghouse engines, Maxwell and Hudson motor cars. He then moved to the General Motors Corporation and for a number of years was a master mechanic for Buick, a factory manager, a member of the Engineering Department, and a GMC vice president. In 1926 he went to the Chrysler Corporation as a vice president in charge of manufacturing. He became President of Chrysler in 1935 and Chairman of the Board in 1950.

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The answer essentially is that America has within its boundaries means no other country possesses to turn out, fuel and maintain military vehicles by the hundreds of thousands, and of all needed varieties, so that it alone can truly put our ground forces on wheels.

THE idea of how a military vehicle should be designed and employed is meaningless unless it can be developed into thousands of high-quality tough, able vehicles.

That's one of the ways our automobile industry works with the military. There are four basic needs which our automobile industry can furnish.

First is experience.

The American automobile industry's experience in building trucks is fundamental to our military vehicle program. No other automobile industry in the world has built as many trucks, in as great a variety, and for as many special purposes, as our own. It has had, moreover, wide experience in military truck production and design stemming from years of serving our Armed Forces. It is accustomed to working with military designers in developing military trucks for unusual and challenging purposes.

Second is productive capacity.

None can equal American industry when it comes to turning out goods. Whether it be in household furnishings, shoes or trucks, our country leads.

In motorizing a modern military force, the ability to manufacture and maintain vehicles in enormous quantities is essential. We have that ability in our automobile industry and its many supporting industries. Furthermore, American industry has the capacity, as it is now proving to the world, to supply forces in the field, to help build a defense program and maintain our high level civilian economy, all at the same time.

Third is research and development.

The automobile industry, like many other American industrial activities, has invested immense sums in its research, development and testing facilities. All of these irreplaceable facilities, the knowledge of inestimable value that they represent, and the future discoveries that will come from them are at the disposal of our military forces.

These facilities include vast engineering and research laboratories; proving grounds, special testing installations, such as "cold rooms" and apparatus of the most expensive and complex sort. They have produced many improvements which have bettered military vehicles. Among them are such important advances as improved heat treating of parts, better surface finishes, superior corrosion protection, higher strength materials, better gear designs, improved steering, suspension and drive systems, new ignition developments, greater fuel economy and so on.

In chemical, physical and metallurgical research, electron microscopes, X-ray apparatus and radio-active tracers probe and find answers to secrets hitherto locked in Nature. Many seemingly minor detail changes in vehicle parts, or in formulae for making them, stem from signal achievements in pure research conducted in industrial laboratories.

It wouldn't be possible to pull all these accomplishments from a hat to serve immediate military requirements. Instead, the majority have evolved in commercial truck and passenger car development programs and become part of the reservoir of know-how against which Ordnance and other armed forces designers can freely draw.

And fourth, there are the savings in money, labor, resources and time that accrue to our defense effort because of that great American asset, the peacetime investment in productive capacity industry has already made.

A SINGLE example, among many, will serve to illustrate this point. I hope I may be pardoned specific references to my own company, since other examples from other automobile manufacturers would doubtless establish the point quite as well. But I am most familiar, of course, with the military truck program in terms of Chrysler Corporation.

For instance, the Government spent approximately $3,000,000 on tools for a military truck which one of Chrysler Corporation's divisions built for it. But into the building of that truck went the use of some $42,500,000 worth of existing tools and facilities which we already had built and paid for through civilian activities.

And, of course, no one can put a price tag on the value of the experience and ability acquired through years of commercial truck building that also went into manufacturing that military model.

Another example of how the experience and productive facilities, accumulated through volume-building of commercial vehicles, work to produce military trucks economically and quickly can be found in our three-quarter-ton, four-wheel-drive military truck.

Although this vehicle is conservatively rated at a capacity of three quarters of a ton, Ordnance designers specified large margins of extra strength, power, capacity and performance to make it suitable for rigorous military use in the field.

Thus our three-quarter-ton truck has an engine that we ordinarily use in a one-ton commercial vehicle. This engine is considerably modified from commercial design, of course, with its special, 24-volt electrical system, amphibious and fungi-proof equipment and many other items. But the point is that a one-ton peacetime truck engine already existed for military use in the three-quarter-ton vehicle. And it was an engine design thoroughly tested and proved in thousands of commercial trucks.

Similarly, the three-quarter-ton military truck has a clutch of a capacity that would be adequate in a two-ton commercial vehicle; a transmission, universal joints and propeller shaft which would be commercially acceptable for a 1½-ton civilian truck. The steering gear is so strong that it would be suitable to guide a three-ton truck.

The same can be said of frames, axle housings, wheels, shock absorbers and many other parts. In addition, scores of parts in military vehicles are especially designed and made for the severe requirements of field conditions. But many of these can be manufactured economically because of tooling that al-

Years of know-how accumulated by the industry are at the service of armed forces' truck designers
This is a Dodge truck assembly line



ready exists for making parts for commercial vehicles.

Looking at the picture as a whole, it would not be possible accurately to calculate the hundreds of millions of dollars which would have to be spent, to say nothing of the time and labor consumed, if vehicles for America's armed forces had to be designed from scratch and the tools and equipment needed to build them had to be developed as well.

But because of the reservoir of design, testing and production capacity already in being in the American automobile and its allied industries, it is possible to build military vehicles in quantity and quality at reasonable cost.

Today, military vehicles, tanks, shells, aircraft assemblies and jet engines pour from the plants of the American automobile industry. All of these activities benefit directly from the country's industrial growth under our matchless system of free enterprise.

THE automobile industry puts the highest priority on its responsibilities in serving the national defense. It works closely with the armed forces, not only in the development, design and production of new equipment, but in following the performance in military use of the things it furnishes the using services.

Industry sends its service engineers to work with Ordnance designers and observe first hand how trucks, tanks, aircraft components, engines and other pieces of ordnance perform.

These military and industry engineers do not want to know merely how well military equipment is standing up and performing. They also want to know what the men who use it feel about it. These representatives in the field want to know what tank drivers think about their tanks, what the ambulance driver has to say about his ambulance; what the comment on service accessibility or the worth of a piece of equipment is in a regimental motor pool.

They look for the company commander's comment, and the opinions and ideas of the GI performing first echelon maintenance. With the military the automobile industry wants this reaction.

The Army and industry know that such knowledge is practical, not academic, and can only be obtained in the field. That's why, at Chrysler Corporation, we do not allow our military service engineers to remain at the home office longer than two weeks. Then they are sent out again, to continue their close touch with men whose very lives may depend upon how well Ordnance and industry engineers have designed and maintained their equipment. And the automobile industry is very grateful to military men of all ranks for their help and candid opinion.

Further, the automobile industry has formed a committee of industry specialists to study and resolve problems of producing military equipment built by the automobile industry. It has organized another committee that deals with problems arising from material shortages and with analyzing possible substitutes for critical items. The Society of Automotive Engineers provides expert services through groups of its members for the study of special problems relating to advanced and projected designs.

Constant and close liaison and cooperation between members of the industry, the government and the using services is vital because of the ever-changing requirements of fighting forces in modern warfare. Not only are new ideas for weapons and equipment regularly appearing, but hundreds of proposed changes in existing items are constantly under review and analysis.

What may seem an excellent design today, may prove to have shortcomings when it reaches the hands of the men who must fight with it.

What may prove in battle to be a superior weapon today may be outmoded tomorrow by some new development of the enemy.

Making equipment for airborne operations is one example of change. Here, otherwise excellent vehicles may not serve because of weight or dimensions. So Ordnance designers will develop changes to give vehicles of equal performance in a lighter, perhaps smaller, "package."

To the best of its ability, the automobile industry serves such changing needs.

THE armed forces and the automobile industry, in their mutual effort to strengthen the national defense, have achieved a noteworthy dedication and praiseworthy cooperation. Yet neither, I am sure, would be content to rest on the laurels of the past or the successes of the present. Both will agree that even closer cooperation in the solving of problems connected with their common undertaking may be looked for in the future.

I do not believe I could overemphasize how important it is that designs for military vehicles continue to be guided so they will fit as closely as practicable into commercial vehicle designs, practices and facilities with all due regard, of course, for the specialized needs of the using services. The more closely this can be done, the more quickly the industry will be able to provide quality vehicles in quantity at lowest possible costs.

There is another aspect of the matter. No vehicle can be practically designed for any and all purposes and conditions.

THE Armed Forces have a tremendous responsibility. They must prepare to meet a foe almost anywhere, any place and under almost any conditions. Hence, it is obvious that military vehicles must be designed to meet an enormous range of requirements. But a vehicle meeting all situations would scarcely be feasible. And perhaps vehicles trying to meet too many situations become questionable from almost any standpoint, be it military, economic or manufacturing.

As it is, our military designers have developed tremendous versatility in military vehicles. One basic type of military truck, for example, now is furnished to haul personnel or cargo, tow guns, provide ambulance service, give mobile communications and many other important functions. The truck can operate under water, over the highway and across trackless broken terrain.

But everything cannot be included in one package. Great credit is therefore due our Ordnance and other planners and leaders for their farseeing appreciation that certain compromises have to be made in the interest of a practical approach to the military vehicle problem.

Still, the automobile industry is confident that it can produce, as time goes on, even more able, rugged, versatile military trucks largely within the production framework of its civilian truck building facilities.

Our country has, as we have seen, a big head start on our potential enemies, which lies, in an important degree, in our great industry developed for peaceful purposes. To get the most out of that productive strength depends upon how much of it we can operate directly for military purposes without costly changes in its mechanism.

The automobile industry, in its turn, actively seeks every possible way it can adapt and adjust its productive machinery, and engage its energies, toward producing the best possible vehicles and other ordnance in the quantities the Armed Forces need.

This is the industry's aim. The fighting forces are much more than customers. They are the shield protecting the nation. Nothing is more important than that to the American automobile industry.



TRUCKS FOR THE AIRBORNE

Lighter vehicles with higher performance

Major William D. Rabon

WHAT does Airborne want? Airborne wants the maximum mobility for all of the Army through full use of transport air power. It wants to fly the largest possible number of equipped forces into combat. This means that we must have as many transport and cargo aircraft as possible and an army with the lightest and most compact weapons and gear that can be devised—without decreasing the combat power of our fighting and supplying units a single iota.

There has been vast qualitative improvement in cargo and troop transport aircraft since World War II, but these gains have been offset somewhat by increased size and weight of wheeled vehicles developed for the Army. The chart on the next page shows this plainly.

In the face of this, the airborne goal can only be achieved by increasing our effort to get lighter and more compact equipment with high military performance.

Many people visualize equipment for the airborne forces as being of a special type. They usually picture an item made of extremely lightweight materials, capable of being delivered in several small components, with necessarily great reduction in performance and dependability. This kind of thinking results in equipment that is delivered on the drop zone in several small packages. In extreme cases this would require a parachuted infantryman to descend, armed to the teeth with assembly data and hand tools. He would have to assemble his equipment and heavy weapons out of a scrambled maze of parachuted parts, some of which may have been dropped on the wrong drop zone or have been lost en route. This method is obviously impractical. It would destroy the surprise that is so essential in airborne operations.

Actually, once an airborne force is parachuted or air-landed on its objective, the combat requirements of its equipment are the same as those of any other attacking combat unit. Therefore the equipment must be delivered intact and ready for immediate use. As in any successful attack, the enemy must not be allowed time to reorganize his resistance.

The best way to get equipment that can be airborne is to reduce its weight and bulk. And it is the wheeled vehicles that make the total weight and bulk of our equipment so large.

To reduce the weight and bulk of wheeled vehicles we must begin with the essential performance requirements, and design the vehicle to *meet* these requirements *and no more*. When a standard item is beefed up to provide increased tactical performance, added weight and bulk are invariable results.

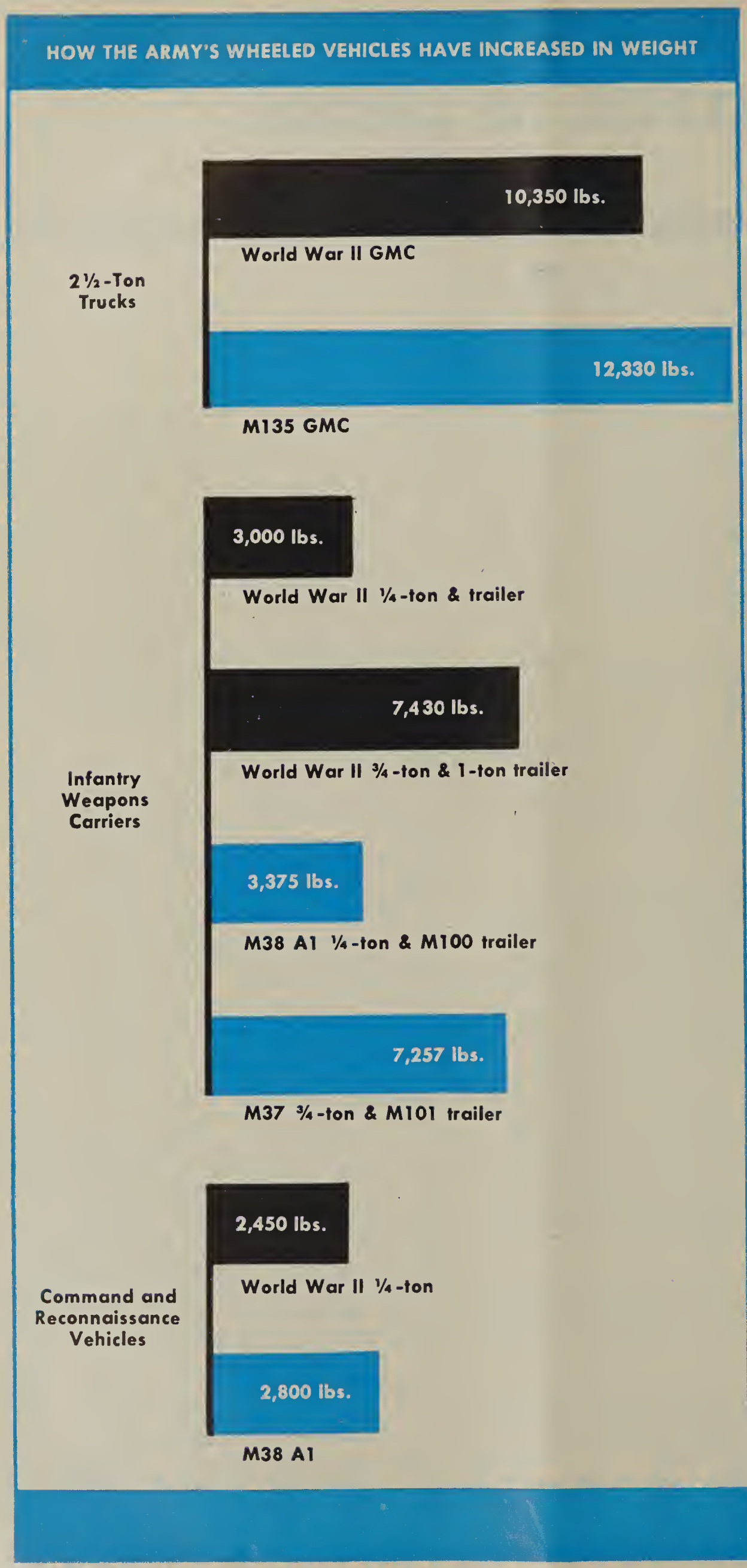
TAKE a look at the 2½-ton truck. We have found that the most stringent tactical requirement for this vehicle is to provide cross-country mobility for a 5,000-pound vehicular load while simultaneously towing a light field artillery piece weighing approximately 5,000 pounds. The World War II GMC was easily capable of this mission. The chart on page 36 shows us that the World War II 2½-ton truck weighed approximately 10,350 pounds. This truck has been replaced by the M34 Reo and the M135 GMC. The net weight of the M135 is approximately 12,330 pounds and the M34 weighs only slightly less. This represents an increase of approximately one ton in the net weight of the 2½-ton truck since World War II.

If it is to be flown into combat, the additional ton of net weight in this truck must be subtracted from the fuel load of the aircraft, or from the weight of cargo loaded on the truck. Either of these definitely limits an airborne operation.

We are told that the M135 and M34 2½-ton trucks both provide much greater cross-country carrying capability than the World War II 2½-ton GMC. Exact figures on the performance capability of new vehicles are not available but they are

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known to exceed the cross-country capability of 5,000 pounds on-vehicle with 5,000 pounds towed. In all probability the actual performance of these new vehicles will approach the required cross-country capability of a 5-ton truck. But the increase in weight and size, that made this additional performance possible, results in greater gasoline consumption and requires more logistical support. It has been said that such increased performance was necessary because the World War II GMC was consistently overloaded in combat areas. Are we to assume that these bigger trucks will not be overloaded?

A properly designed vehicle will solve the weight and compactness problem. Airborne experts believe that present engineering and manufacturing know-how can design a tactical vehicle that can transport 5,000 pounds cross-country while simultaneously towing 5,000 pounds, and confine its net weight to not more than 7,000 pounds. Such a truck, with driver and load, would be well within the lift capability of the C-119 cargo aircraft. The vehicle could also be loaded in one airplane with a towed light field artillery piece and about two tons of crew and ammunition. This would provide a basic unit of field artillery, delivered intact and ready for immediate action when unloaded.

NOW look at the infantry weapons carrier. During World War II the infantry weapons carrier was the ¼-ton command and reconnaissance truck with the ¼-ton trailer and/or the ¾-ton weapons carrier with the 1-ton trailer. A trailer reduces the mobility of vehicles and the World War II weapons carriers were limited in their ability to accompany riflemen over rough terrain and poor road nets.

The combination of the ¼-ton truck and trailer weighed approximately 3,000 pounds and carried about 1,000 pounds of weapons and equipment. The ¾-ton truck and trailer weighed approximately 7,400 pounds and carried about 3,000 pounds of weapons and equipment. The present infantry weapons-carrier combinations weigh about 3,400 pounds and 7,250 pounds, respectively, and have the same cross-country capability as the World War II combinations.

When we consider aircraft requirements we can see that the weights of these carriers are a heavy price to pay for the limited mobility we get from them. One C-119 can transport but three ¼-ton weapons-carrier combinations, with a total cargo of weapons and equipment of 3,000 pounds. The ¾-ton

combination requires one C-119 aircraft for each combination, again with a weapons and equipment load of 3,000 pounds.

Parachute delivery of the ¼-ton combination is more expensive in aircraft. Only two weapons-carrier combinations carrying 2,000 pounds of weapons and equipment can be loaded in a C-119 for parachute delivery because of the extra weight of heavy drop equipment and the fact that trailers must be loaded upright instead of being stowed on their sides alongside the carrier. The parachute delivery of the ¾-ton combination entails the same aircraft requirement as for air transport except that the drop kit eats up more than a ton of the weight capacity of the plane.

Development of a lightweight infantry weapons carrier designed especially for the airborne mission is logical. One list of specifications calls for a vehicle capable of transporting 1,000 pounds of weapons and/or equipment cross-country in addition to the driver. It would weigh about 750 pounds, and be about 30 inches high, 100 inches long, and 40 inches wide. It should be capable of operation while the driver is either riding or walking alongside. Sustained cross-country operations at speeds as low as one mile per hour without overheating are desirable.

The 100-inch length limitation permits crosswise loading in the C-119. For air transport, each C-119 aircraft could carry eight of these infantry weapons carriers, each with driver and 1,000-pound load. For parachute delivery, each plane could carry seven of them plus driver and full 1,000-pound load. The construction of the lightweight infantry weapons carrier may make parachuting of the load and the vehicle possible. This would allow parachute delivery of 7,000 pounds of weapons and equipment, with weapons carriers and drivers, from the same C-119 aircraft. But infantry weapons carriers would seldom be loaded in this manner. More likely they would be loaded throughout a series of aircraft according to the tactical requirements. Thus the combat integrity of combat units would be maintained.

This vehicle may replace the ¼-ton truck and trailer on a one-for-one basis. Crews and weapons carried by these lightweight infantry weapons carriers will not ride on them. But by removing the entire load from their backs, they should be able to keep up with, and support the infantry rifleman in his advance cross-country.

Development of the new lightweight infantry weapons carrier is under way and it may be in service test very soon.



This "jungle burden buggy," developed in World War II but never used, was the forerunner of a lightweight weapons carrier for the airborne infantry.

This is a command and reconnaissance vehicle designed for airborne infantry by Willys-Overland engineers. It weighs about 1,500 pounds and is 100 inches long.



LET'S look now at the command and reconnaissance vehicle. The ¼-ton truck which served as the command and reconnaissance vehicle in World War II weighed approximately 2,450 pounds. The present M38 ¼-ton truck, weighing approximately 2,710 pounds, replaced it.

The ¼-ton truck reached its present size and configuration through a series of compromises in mission and design, caused by the desire to provide a single vehicle that could perform as a command and reconnaissance car as well as an infantry weapons carrier. The lightweight infantry weapons carrier under development will relieve the ¼-ton truck of its weapons carrier role and it can then be reduced in size and weight for the command and reconnaissance role.

The weight of the ¼-ton truck is not its only deficiency in air transport. Its length precludes economical crosswise loading in the cargo compartment of the C-119. This limits the plane to only three ¼-ton trucks regardless of how much weight might be reduced. But if the length of the command and reconnaissance vehicle was held to 100 inches it could be loaded crosswise. Seven such vehicles could be loaded in each C-119 aircraft for air transport, and at least six for parachute delivery.

A command and reconnaissance ve-

HOW LIGHTER VEHICLES CAN SAVE TONS AND AIRPLANES

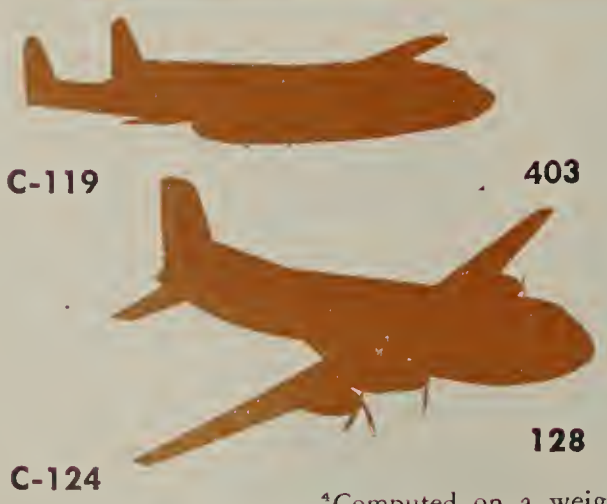
BY USING	in the Infantry Division	in the Airborne Division
7,000 lb. 2½-ton truck[1]	2,555 tons	1,198 tons
Lightweight Weapons Carrier[2]	291 tons	219 tons
Command and Reconnaissance car[3]	679 tons	634 tons
Total Savings	3,225 tons	2,841 tons

[1]Substituting it on a one-for-one basis for each present 2½-ton truck.

[2]Substituting it on a two-for-one basis for each ¾-ton truck and trailer combination now used as a weapons carrier and on a one-for-one basis for each ¼-ton truck and trailer weapons carrier.

[3]Replacing on a one-for-one basis the remaining ¼-ton trucks in each division.

THIS TONNAGE WILL SAVE THESE AIRCRAFT[4]



C-119	403	355
C-124	128	113

[4]Computed on a weight basis, giving the C-119 a 8-ton load and the C-124 a 25-ton load.

hicle has been designed by Willys-Overland. It is 100 inches in length, weighs approximately 1,500 pounds, and is said to approximate the present M38 in performance capability. Such a vehicle is a step in the right direction, and the weight can probably be reduced still further by making minor changes in design and eliminating all luxury items.

What happens when we substitute these smaller and lighter vehicles throughout the infantry and airborne divisions? The chart on this page shows the great tonnages that can be saved without reducing the essential military performance capabilities of these vehicles. The savings in aircraft are of particular interest to those who visualize mobility through air transport. Although the necessity for tactical integrity in an actual mission will preclude utilization of the full weight capacity of each aircraft, this example is still representative.

SO long as we Americans fight our wars overseas and in enemy territory, the average military vehicle will be transported more miles than it is driven. So each pound of transportation capacity used to carry unnecessarily heavy equipment represents one less pound of beans or bullets for the fighting man.

The administrative rail movement of each infantry division would require 480 fewer 40-foot flat cars, if the division were equipped with the vehicles proposed in this article. The similar movement of an airborne division would require 430 fewer 40-foot flat cars. This loading comparison was figured on the basis of putting as many vehicles as possible on the fewest possible 40 feet by 9 feet 40-ton flat cars. Loading of small vehicles in larger vehicles was practiced, within the limitations that no special handling equipment was used.

The administrative sea movement of each infantry division equipped with the proposed vehicles would require approximately 354,000 cubic feet less shipping space. Each similarly equipped airborne division would require approximately 309,000 cubic feet less shipping space.

The possible savings in steel is also significant. The lighter vehicles described here would require less steel and other critical materials. Therefore, they would save manpower and materials.

These vehicles would require less fuel and lubricants, which in turn will reduce the transportation of POL.

We can design and produce these vehicles now. For combat mobility and for economy's sake we should lose no time in developing them.



MEETING A CRISIS IN SHOP OR FIELD

Expedients are wonderful — but dangerous

Captain Lawrence W. Fite

APPROVED methods of solving practically all of the problems that beset motor sections are taught in our schools, described in our manuals, handed down by word of mouth by wise motor sergeants, or simply followed through habit and custom. All goes well in motor maintenance if the five PESTS—Personnel, Equipments, Supplies, Time and Situation—are normal, which seldom happens. But when one or more of these PESTS is absent, problems develop that can only be solved by resorting to a temporary makeshift or substitution of some kind. What we in the Army call an Expedient.

This article is about Expedients—how to use them and when, dangers and pitfalls in their use. A number of Expedients are described, but mostly I have tried to show how situations develop that call for the use of an expedient, and how to find and use the right one when you have to.

THE TO&E tells us who should be a part of the maintenance section. But the full number is rarely present for duty. Passes, leave, sick, schools, additional duty all reduce the section's strength. The section rates one welder, but when he is putting in his time elsewhere, his job is either undone or one of the other men must be trained to pinch-hit for him. So it goes with all the specialists: the parts man, the dispatcher, the ignition specialist. The solution—the expedient—is that the entire section must be constantly learning new skills over and beyond their specialty. Men capable of learning these varied jobs are hard to find. Thus, the problem of training becomes doubly hard and the efficiency of maintenance may drop.

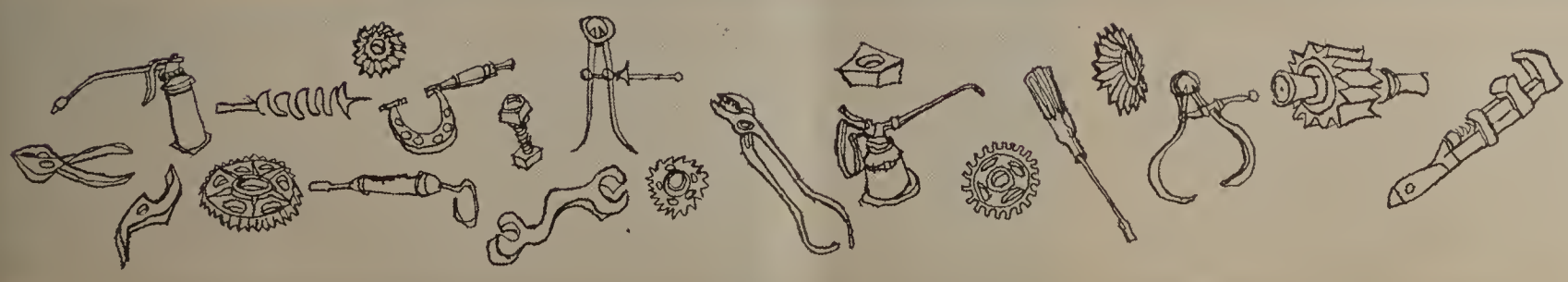
But there is an expedient for this, too: Borrow men from other sections. Ammunition handlers in a static situation are a possible source. So are drivers who aspire to be mechanics or battery mechanics who want additional training. You can get help from Ordnance or even from other sources when the situation permits. But the effect of these expedients hinges on additional instruction.

This brings up on-the-spot training. Classes are formed, training aids developed or obtained, and the process of beating an efficient and worthwhile team into condition is undertaken right in the organization. In these instructional periods the small skills of each man must be taught to every other man. Thus the team grows strong together.

EQUIPMENT is another factor. The tables tell what you should have—if you can get it. Special tools are particularly hard to get. Much of the maintenance equipment is old, tired and obsolete. Breakdowns occur frequently, depriving you of the use of many items. But field expedients will keep you going. If your wrecker has a bad starter and you can't get a replacement, park it on a hill or tow it to get it started.

You can charge batteries with a makeshift charger made from a heavy duty generator and an electric motor. Of course you have to have electricity for this. You can use the air system on one of the shop trucks to supply air for the shop. This is not economical, but if your compressor is sent in for repairs and there is no replacement available, this expedient will carry you through. Hand tools wear out and instruments and gages require repair. While you await replacement, you must still function, so you

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FIRST AID

There are three approaches to the problem of starting a truck that refuses to start.

The first is to pick up a club and race around the truck thrashing it madly, howling like a baboon. This may not start the truck, but it makes you feel swell.

The second is to pick up a club and race around the mechanic who is supposed to keep it rolling, beating him until he howls like a baboon. This doesn't start the truck, but it sends you to the guardhouse.

The third is to start the truck by figuring out what's wrong with it. . . .

[But if all efforts fail] beat yourself over the head with the club and howl like a baboon until the maintenance gang comes up. . . .

From *Keep 'em Rolling, A Driver's Handbook*
Infantry Journal Press, 1945

needs. This soon becomes a reciprocal operation, and in most cases, with effects favorable to the service.

"Scavenging" is particularly applicable in a combat zone. There are always wrecks, and collecting points of unserviceable equipment that provide an excellent source for serviceable parts. Even limited stocks may be built up from these sources, but don't overtax your storage and transportation facilities. A good supply of nuts, bolts, studs, washers, screws, grease fittings and similar small critical items may be collected by scavenging.

Scavenging from civilians requires utmost diplomacy. The barter of U.S. property to civilians or other allied forces is illegal. So you don't do that. Sometimes you may find an approved local procurement program, but don't start one without proper authority. "Liberated" matériel is U.S. government property, so you may use it to maintain your transportation, but do it only within the bounds of existing regulations and directives.

"Cannibalizing"—the taking of a part from a piece of your own equipment to make another piece serviceable—is strictly an expedient to be used in the direst of emergencies. Cannibalizing can become a disease that consumes and destroys all available transportation. Vehicles can completely lose their identity through cannibalization. Vehicles have been scrapped because so many parts had been borrowed from them that it was uneconomical to repair them. Vehicles have been cannibalized so that when a hasty movement came they couldn't even be towed and had to be abandoned or destroyed. Here's an example of how cannibalization can be used to advantage: A vehicle is going to Ordnance for repair, while a similar one needs a minor part and repair. By transferring the part to one vehicle, you get the use of one truck and at the same time you are taking steps to have the parts restored in the first truck. Remember though, cannibalizing is a last resort.

In the field of emergency repairs, expedients have their greatest flowering. Here the tinkerer, the dreamer, can create weird Rube Goldberg devices that work. It is here that you make something out of nothing or make a machine



improvise. The welder doubles as a machinist-toolmaker-blacksmith and makes the tools you need: a special puller, a special wrench, a new part for the toe-in gage. Or he repairs broken tools, makes tire irons, sharpens chisels, makes bolts and studs that you cannot draw. When there is a minimum of equipment, problems must be solved by using all of the ingenuity you can muster.

Next you must expedite supplies. You might include equipment under this heading, too, if you mean repair parts and expendables. No matter how many parts you have stocked, you always need the one you don't have. Where do you find it and how do you get it? First try to get it through normal channels. Always do that. Not only does this show that you made the correct effort, but it creates a need, and usage tables can be corrected accordingly.

But when the parts man doesn't come back from normal supply sources with the part you need, you must expedite. There are several procedures. You can scrounge, scavenge, cannibalize, or make emergency repairs.

Soldiers need no explanation of "scrounge." I do not offer it as approved practice, but it is an expedient to be used only in an emergency. It is a lateral procurement process. You canvass your neighbors and by fair means persuade them to supply you with your

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do something that it was never intended to do. These expedients really keep 'em rolling. A complete list of expedients will never be made. The ones I have used are too numerous for one article —but here are a few such typical ones.

A LEAKING radiator may be repaired by plastering it with some water insoluble material, such as chewing gum or road tar. Kerosene (or diesel fuel) makes an excellent emergency coolant, particularly in freezing temperatures. A good stop-leak compound for small radiator or cooling system seepages, is ordinary ground black table pepper. A broken fan belt can be replaced by a spliced rope. The faulty section of a head gasket can be cut away and a piece of insulated wire or wire solder laid in the spot to hold compression or coolant until you get a new gasket. An external block crack may be patched by screwing a plate with a gasket over the fault. Most small fuel leaks can be plastered with GI soap. A self-threading screw, a piece of gasket and a washer will seal a small hole in a fuel tank. A broken fuel line can be repaired temporarily by slipping a piece of rubber hose over the two ends. A truck will run from a gravity fuel supply placed higher than the carburetor if the fuel pump goes bad. A piece of coiled copper tubing will pinch-hit for a flexible line. A cracked, shorted distributor cap can be made serviceable by drilling a hole through the crack. Ethylene-glycol antifreeze is an excellent brake fluid substitute and will mix satisfactorily with regular brake fluid. Bolts, screws, and studs may be borrowed from non-critical parts of the vehicle to make a critical part serviceable. Broken spring plies can be welded.

These are a few that I know will work but there are thousands more. With these expedients many serviceable miles can be obtained from otherwise unserviceable vehicles. A precautionary note: at the earliest opportunity the emergency repair must be replaced with the genuine article. If not, our trucks soon will become contraptions held together with baling wire and chewing gum.

TIME is factor number four. The cry that "We don't have time," becomes very monotonous. Time does largely control the extent of your maintenance. But better use of time is possible, too.

For example, a truck has upset by the side of the road. Immediately the situation must be evaluated by the man in charge. "Can it be righted with what we've got? Will I block other traffic in the process? How can I accomplish it with the least damage to equipment? Do I have time to do it now? Will I have time to come back and get it later? Will I save time by delaying traffic a little now and gaining the use of my disabled vehicle immediately?"—he must answer all these questions. If he answers them correctly he'll save time.

When making expedient repairs, the completeness of the repair may depend upon the time you have. Much precious time can be wasted by tackling a problem in the wrong way or taking unnecessary steps in making repairs. Time is not a variable. It is constant and the other factors must be made to comply with the time available.

THE last factor—the situation—may be considered as a combination of all the other factors plus the outside contributing conditions. "It depends on the situation" is definitely applicable in field maintenance. Weather, terrain, enemy activity, all have a controlling effect. The more adverse the situation, the greater the problems. However, by judicious consideration and command cooperation, the situation can be made favorable for maintenance. The maintenance section should be conveniently located and security should be provided. It should move only when absolutely necessary. It should be accessible to all parts of the organization. An effort must be made to keep the load light; that is, avoid unnecessary calls for the wrecker, seek assistance in freeing mired vehicles. The situation can be controlled, but it takes training and cooperation.

THESE then are the five factors governing maintenance. I have made no mention of how these same factors affect schedule maintenance but how they affect field maintenance and breakdown or emergency repairs. You can see that it is not necessary to sit passively and let the world and the enemy go by, but that you can do something for yourself to alleviate adverse conditions. The whole process has extremely gratifying results. The more you do for yourself, the less supporting services have to do for you. The less they have to do to help you in these field expedients, the more they can do for you in the scheduled mintenance program. Everybody gains, but note—it doesn't just happen. It takes definite aggressive action on somebody's part, usually the battalion motor officer, to spark these efforts. The result is the accomplishment of the mission, making available a maximum of organizational transportation.

Infantry School Instructional Material

The following new instructional material suitable for non-resident as well as resident instruction may be ordered from the **Book Department, The Infantry School, Fort Benning, Ga.,** at the prices shown. (The COMBAT FORCES Book Service regrets that it cannot handle orders for these pamphlets.)

WEAPONS DEPARTMENT

Transition Firing: No. 1269. Transition firing of marksmanship qualification course for M1 rifle; concurrent training in landscape target firing. 8 hours. 10¢

Marksmanship, Cal. .30MG M1917A1: No. 1329. Range procedure, emplacing; zeroing, sighting and aiming, and manipulation; practice firing, Table L, Course A. 4 hours. 10¢

Technique of Fire, MG Cal. .30: No. 1379. Final protective lines; sectors of fire; range cards; auxiliary aiming point; position defilade. 8 hours. 10¢

TACTICAL DEPARTMENT

Reinforced Battalion, Armored Division in Defense: No. 2614. Conference and terrain exercise emphasizing principles, organization, planning and conduct by a reinforced battalion and company of the armored division in mobile defense to include demonstration of a reinforced company occupying part of the outpost system. TF 17-1560, "Tank-Armored Infantry Team in the Mobile Defense." 4 hours. 50¢

STAFF DEPARTMENT

Casualty Reporting: No. 6506. Familiarization with the responsibilities of battalion and echelon commanders for the collection, evacuation, identification and burial of deceased personnel subject to military jurisdiction; casualty definition; procedures for the collection of information including circumstances known by individuals witnessing the occurrence, covering all types of casualties; importance of prompt and accurate reporting; disposition of personal effects of deceased personnel; reports required; responsibilities for preparation of sympathy letters; and restriction on correspondence. 2 hours.

Introduction to Company Supply: No. 7651. Duties of company supply personnel and their relationship with other supply personnel; types of property; use of allowance publications. 1 hour. 35¢

FRONT AND CENTER

More, rather than less unification, would seem to be the goal of President Eisenhower's Administration. It is notable that the President spoke of the need for "a strong fighting *service*" rather than *services* in his State of the Union message *(Page 8)* and also warned against letting "traditions or habits stand in the way of developing an efficient military force."

✓ ✓ ✓

The increasing effect of atomic and other new weapons on the doctrine, organization and equipment of the Army is seen in the announcement of the establishment of an Office of Special Weapons Developments Director at Fort Bliss, Texas, as a field section of the Office of the Chief of Army Field Forces. His job will be to maintain liaison with other agencies, plan and direct Army participation in special weapons developments and tests, make evaluations and reports, and keep Army authorities abreast of developments.

✓ ✓ ✓

Congress will probably repeal two unfortunate riders to service appropriation bills. On the Davis amendment restricting promotions Chairman Short of the House Armed Services Committee got his figures of speech mixed but still was clear enough when he said: "It was aimed at the top brass, but hit the junior officers. We were asleep at the switch." The Committee was told by its Chief Counsel that he could "not see the validity of a further extension of the so-called Van Zandt Amendment. It [had] served its purpose"—of keeping regular officers from retiring as long as reservists were on involuntary active duty and enlistments were being extended.

✓ ✓ ✓

In his valedictory, retiring Air Force Secretary Finletter spoke as though the Air Force was still unhappy over the organic aviation of the Navy and Marine Corps. He said it was time to review the Key West-Newport inter-Service agreements of 1948. He said that he thought the recent Army-Air Force agreement on Army use of helicopters and small fixed-wing aircraft "is only sensible," that he favored a Marine Corps air force as long as it wasn't built and maintained at the expense of the Air Force, and that "as far as the Navy goes, that is a problem which has to be settled at a higher level than the services."

✓ ✓ ✓

Inactivation of two corps headquarters in the U.S. doesn't mean that the Army is reducing its combat strength. The corps were activated following the outbreak of the Korean Conflict when future mobilization requirements were uncertain and to help in the then pressing job of creating trained units. With the Army's strength stabilized and the training program well set up, the work of these corps headquarters could be assumed by army headquarters without loss of efficiency and with some saving in manpower.

✓ ✓ ✓

Noting that "malicious attacks" are sometimes made on men in uniform, Mr. Truman in his final press conference read a statement praising the armed forces. "I believe that our military leaders are doing a tremendous job and doing it well. . . . I know no group of men more deserving of our respect, gratitude and support," said the retiring Commander in Chief.

✓ ✓ ✓

Mr. Lovett's observation that reorganization of the Army's technical services "would be no more painful than backing into a buzz saw" and that he has seen one memorandum outlining a "promising" method remains a small mystery. Department of Defense officials say they can't identify the paper Mr. Lovett referred to, although one report has it that the study or a similar one had been prepared by Karl Bendetsen, a former Assistant Secretary of the Army. It is possible, though, that details of the proposed reorganization and justifications for it may be made public before this appears. Certainly arguments against the technical services are as old as the services themselves. And also certainly, as Mr. Lovett observed the system works—"amazing" though it may be to him and others.

✓ ✓ ✓

One million persons go in the military manpower pool each year—that is they become 18½ years old—and a million go out at the rate of 90,000 a month Mrs. Anna Rosenberg reported in a final summary of her activities as Assistant Secretary of Defense for Manpower and Personnel. This manpower pool is low because the birth rate in the 1930's was low and will not increase appreciably until 1960. Military manpower requirements can only be met, she suggested, by tightening up college deferments, making it clear that such a deferment is a postponement and not a virtual exemption. Students who become fathers while in school should be required to serve and she recommends that all who have become fathers since 25 June 1950 should serve.

✓ ✓ ✓

Veteran newspaper correspondents in Korea were as unhappy over the first distorted newspaper account of Operation Smack as the Army. After pleading with Eighth Army to give them more opportunities to cover combat operations at first hand, these newsmen were aghast when an inexperienced newcomer in their ranks told the story in terms of the lurid cover put on the operations order and called a "scenario" by a likewise inexperienced PIO. It was reported that the first hint many of the experienced correspondents had of this fiasco was urgent queries from their editors on that reporter's "scoop."

LT. COL. HOLLIS C. CLARK

Almost annually for a good many years your Editors received a pleasant call from a very spry and alert former Editor. Lieutenant Colonel Hollis C. Clark, Infantry, Retired, never lost interest in the doings of your Association and long made it a custom to come in to pay his respects briefly to new Editors. Colonel Clark was Editor of the *Infantry Journal* and Secretary of the U. S. Infantry Association from December 1906 to May 1909. Those were the days when the Infantry Association was fighting a hard battle to "lift the Infantry out of the peasant class," as one veteran aptly put it. Under Colonel Clark the *Journal* was a fine professional magazine as well.

Colonel Clark, 85, died at Walter Reed Hospital on January 5, 1953.

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FROM THE SCHOOLS

THE INFANTRY SCHOOL

Clarification

In this space in the January issue, in an item on "Marksmanship" the system used at The Infantry School of giving a coach added incentive to "coach" his pupil during rifle marksmanship training was described. The article stated that the School "has adopted a system that allows the coach to add extra points to his score if the pupil qualifies." Some misunderstanding has arisen over the exact use made of the "points" referred to in the article. The points, 10 for expert, 7 for sharpshooter, 3 for marksman and none for failure to qualify, are added to the *coach's academic grade* for his rifle marksmanship firing. The additional points in no way affect the coach's or firer's qualification scores as outlined in FM 23-5; they affect only the academic grade of the coach under the School's grading system.

Monographs

Every Infantry Officer Advanced Class student now prepares a 2500-4000 word thesis on a selected military subject. Each officer also gives a 20-minute oral presentation based on his written material.

These monographs cover almost all phases of training, tactics and administration as well as many new ideas. After grading they are filed in The Infantry School Library and become valuable reference material.

New Commandant

Brigadier General Guy S. Meloy, Jr. assumed command of The Infantry Center on 10 January. Before this assignment, General Meloy was the Assistant Commandant, TIS. His predecessor, Major General Robert N. Young is now Deputy Assistant Chief of Staff, G1, Department of the Army.

Semi-Portable Range

The Weapons Department and Combat Development Section and AFF Board No. 5 are currently testing the Ground Combat Assessor, a semi-portable electronic range. GCA is an electro-mechanical device consisting of three E and one B type metal silhouette targets set up at varying ranges. The targets can be raised or lowered by remote control. They can also be arranged to raise and lower automatically at specific pre-set intervals of time or to count hits during a specific time interval. One of the E silhouette targets is mounted on a dolly and can be traversed along a 65-foot track, its speed and direction being controlled by the operator.

The scoring apparatus consists of a microphone, mounted below the target, which picks up the sound of the projectile striking the metal target. The resulting electrical impulse is relayed to a counter at the operator's console.

If the results of current tests are favorable it is likely that the Ground Combat Assessor may be used at AFF installations for transition and field firing.

THE ARTILLERY SCHOOL

New Training Aid

The Department of Air Training has added a model of Fort Sill and the surrounding area to its training aids. Constructed by the post training aids section, it will be located in the new Link trainer classroom.

Eight circuits beneath the large table on which the model is mounted will furnish power for the field and obstruction lights. A complete blackout is possible, to simulate night flying conditions. A panoramic back drop is provided to show prominent check points on the horizon.

The model will (1) orient incoming students on the Post Field traffic patterns and the general formation of local terrain; (2) simulate arrivals and departures at Post Field in conjunction with Link activities; (3) provide training for control tower operators.

New FA Training Tests

A board of officers, representing the various departments of TAS, has completed revision of Army Training Test 6-1, Field Artillery Battery. The new test emphasizes speed and accuracy in the adjustment and delivery of fire, cutting the time allowed for all observed missions and increasing the required survey accuracy. The test has been forwarded to OCAFF for review. Training Tests 6-2 and 6-3 on the field artillery and rocket battalions are also being revised.

Tests for Artillery Weapons

Basic periodic tests for field artillery weapons to determine that the sight mount remains in correct relationship with the tube throughout the limits of elevation and to check the adjustment of cross- and longitudinal-level bubbles have been developed by Ordnance, tested by TAS, and adopted for the Artillery. These tests are to be performed at the discretion of the unit commander but suggested intervals are: a year for guns used for nonfiring training, three months for guns that are fired, and as soon as possible after extensive use, accidents, or movement across rough terrain.

Before testing the fire control equipment a gunner's quadrant to be used in the tests is given an end-for-end test and the trunnions are leveled. Leveling of the trunnions is checked by observing that the axis of the bore tracks a plumb line throughout the limits of elevation. The plumb line is suspended so that it hangs about five feet in front of the muzzle of the weapon being tested. The tests of the on-carriage sighting equipment are then performed as prescribed in the new weapons series of field manuals (FM 6-75, FM 6-76, FM 6-81, etc.).

At the completion of these basic periodic tests, with all sighting equipment in proper adjustment, lines are scribed at specified points across the fixed and movable parts of the sight mount. At any later time when leveling is impossible and it is desired to bore sight the gun, these scribed lines are matched. This is to obtain the same relationship between the axis of the bore and the sighting equipment that existed during the tests.

Although these tests are conducted by the using artillery units, indicated adjustments are performed by Ordnance service units.

Medical Instruction

Students at The Artillery School are showing interest in the medical subjects recently included in the curriculum. Included are such topics as hygiene and sanitation, medical aspects of atomic warfare, staff and command relationships of the surgeon, medical plans, and evacuation of the sick and wounded. These topics are presented with the dual purpose of outlining the responsibilities of the commander and the surgeon, and of showing how these responsibilities are the mutual concern of both.

A sizable portion of the study is given to the organization, functions, employment, and communications of the medical units within, and in direct support of the division, emphasizing that the medical facilities of a command are the commander's responsibility.

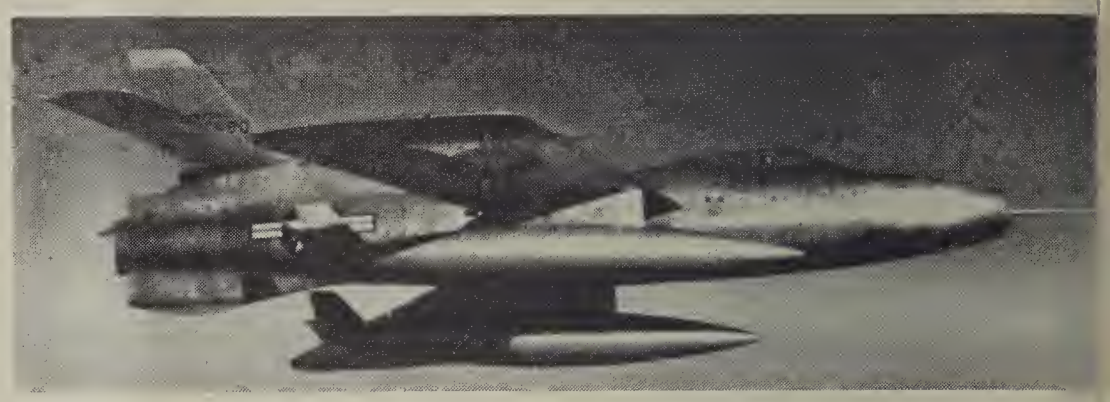
Medical channels and facilities are studied to provide a working knowledge of the medical means available to the commander, both as organic detachments furnishing unit medical support to the artillery, and the neighboring facilities which become involved in the medical care of the artillery observation and liaison personnel on duty with the supported unit.

Irons in the Fire



Midget Submarine

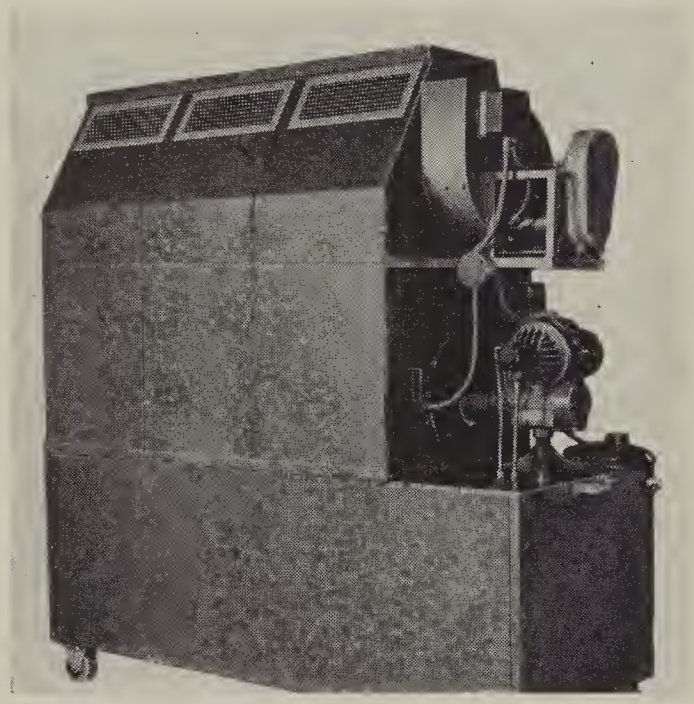
Fairchild Engine and Airplane Corp. is to design and build a prototype 25-ton midget submarine for the Navy. While specifications of the small craft remain classified, company officials confirmed that it could be used to project guided missiles. Such a sub could likewise be taken to sea by a larger undersea craft and launched close to enemy target.



Republic's high speed, high altitude XF-91 interceptor

Rocket Plane

USAF's very-high-speed interceptor plane, the XF-91, built by Republic Aviation, recently completed the first supersonic rocket powered flight ever made by an American combat-type fighter. The announcement revealed that supersonic speeds were reached but all performance details are restricted. Extra power for the supersonic speeds is furnished by a 6,000-pound thrust rocket engine in addition to J-47, 5,200-pound thrust turbojet engine and afterburner.



Portable heater

Portable Heating Plant

A portable heating system designed for use in temporary construction or for emergencies has been developed by National Heater Company. Military applications and uses are apparent in it.

These oil-fired heating units come in six sizes ranging in output from 200,000 to 1,800,000 BTUs. The heaters have induced draft blowers and require only a short vent connection for exhaust. An adjustable belt drive fixes the draft at proper intensity. For indoor use the heaters can be mounted on casters, and skids can be used for outdoor installations.

Ambulance jeep has 100-inch wheelbase



Tank Recovery Vehicle

Chrysler Tank plant will produce a new tank recovery vehicle for Army Ordnance just as soon as engineering work has been completed. Details have not been disclosed.

Heavy Equipment Drop

The first mass paradrop of heavy engineer construction equipment was recently completed by Army Engineers and Air Force troop-carrier units. Forty Fairchild C-119s were used to drop some 400 tons of special construction equipment, which included: a 21,000-pound crawler tractor with bulldozer, 21,000-pound front-loader tractor, an 18,000-pound rubber-wheeled tractory, an 18,000-pound grader, a 17,500-pound dump truck and a 13,000-pound scraper. As many as six 100-foot chutes were required to bring the heavy vehicles safely to the ground where they were immediately put to use by the engineer troops in constructing a 4,000-foot airstrip.

Armor, Lower Torso

Combat troops in Korea are now testing "bullet-proof" shorts. They are made of the same material as the armored vest—12 layers of flexible, spot-laminated nylon duck, encased in a water-resistant vinyl layer with an outer covering of six-ounce nylon fabric known as "lower torso armor," the shorts protect the hips, abdomen and groin. The shorts are worn with suspenders and come in small, medium and large sizes with side laces for adjustment. Each set weighs four pounds.

Jeep Ambulance

A new jeep-ambulance will soon go into production at the Willys-Overland plant at Toledo. With a larger wheelbase (100 inches instead of the standard 81 inches), the Jeep ambulance has an extra long body with ample space for litters. It can accommodate three litter patients or two litter and as many as four ambulatory patients, and still allow room for a medical attendant. The entire vehicle is inclosed and has a forced-air heater, providing complete weather protection. The parts used in its manufacture will be 96 per cent interchangeable with other jeeps used by the services. The vehicle was tested at Aberdeen Proving Ground, Md., Ft. Knox, Ky., and the Marine Corps' Quantico, Va. base.

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★ BOOK REVIEWS ★

BARUCH: ADMINISTRATOR AND PROPHET

PEACE THROUGH STRENGTH. ***Bernard Baruch and a Blueprint for Security.*** **By Morris V. Rosenbloom. Foreword by Eleanor Roosevelt. Afterword by Charles E. Wilson. American Surveys, in Association with Farrar, Straus & Young, 1953. 325 Pages; Index; $3.95.**

Some few years ago, Mr. John D. Small, the Chairman of the Munitions Board, said, "The heart of our armed forces is the American fighting man, but the muscle consists of the ships, tanks, guns, and bombers, the fighting aircraft, and the other instruments of war with which he carries out his fighting mission." No other nation has factories, management, and skilled labor comparable to those of the United States and as capable of providing the necessary "muscle" to its armed forces. These resources in tools and in the other economic potentials of the nation are, however, of little value unless there is an effective organization in time of war to coordinate their operations and divide the output with wisdom and justice between the armed forces, the civilian population, and our allies.

What that organization should be, and what administrative methods it should adopt, has been the constant preoccupation of Mr. Bernard M. Baruch during much of his long life. His essential contribution to victory in World War I as head of the War Industries Board has already been recognized by history in full measure. Ever since that experience, he has been the advocate of sound preparedness and of intelligent planning in time of peace for the use of our resources in a major war. He has been not only a capable organizer, but an effective administrator and a wise prophet. Too often his words have fallen on deaf ears, but he has never been fearful of repeating his recommendations that should be carefully heeded by all American citizens. This country owes much to Mr. Baruch. How much, is proved by Mr. Rosenbloom's book, which provides the opportunity to become familiar with Mr. Baruch's achievements and philosophy.

World War I gave Mr. Baruch his first lesson in economic mobilization. It showed the difficulty of improvising in the critical confusion of a major war. He has repeatedly reminded us that the cost of extemporizing in 1917-18 could be measured in billions of dollars. In spite of his efforts, in 1940-41, one ineffectual agency after another was set up, attempting to devise an effective over-all control for the growing economic mobilization to meet the world crisis. The problem was ultimately solved, at again at excessive cost and with too much delay, largely through neglect of Mr. Baruch's teachings.

Mr. Baruch's program for keeping the peace in a troubled world has always been, first and foremost, well trained and well equipped armed forces. Behind them, he has advocated in peacetime a nucleus of a super agency that would appraise our resources, determine our requirements, and prepare plans for the effective use of our national potential. This skeleton organization could be expanded in the event of war by the mere addition of personnel. It would definitely prevent the disastrous and costly improvising of two World Wars, and if Mr. Baruch's advice were taken, it would certainly diminish the inflationary trends that inevitably accompany war.

In her foreword to this book, Mrs. Eleanor Roosevelt asserts that, "Mr. Rosenbloom has captured the very essence of this man's great wisdom and vision." In a final chapter, Charles E. Wilson, former director of the Office of Defense Mobilization after Korea, expresses the hope that this book will preserve the lessons of the past, and acknowledges his own debt to Mr. Baruch. Mr. Rosenbloom's book, although it would have been more useful if the contents had been better organized, should help to counteract some of the defects that Mr. Baruch observed in 1949, when he said, "Lack of self-discipline, weird economics, strange ethics, and perverted logic, if persisted in, will surely destroy us." Mr. Baruch's example of patriotic devotion and his thoughtful teachings will help to preserve the republic in the divided world of the second half of the twentieth century.—Brigadier General Donald Armstrong.

TOWARDS UNDERSTANDING USSR

SOVIET ATTITUDES TOWARD AUTHORITY. By Margaret Mead. McGraw-Hill, 1951. 149 Pages; $4.00.

THE ORGANIZATIONAL WEAPON. By Philip Selznick. McGraw-Hill, 1952. 350 Pages.

These are both studies prepared and published for the Rand Corporation which under Air Force and Ford Foundation auspices, has been doing much valuable research for the past several years.

Miss Mead, foremost of American anthropologists, headed the team that sought the material for *Soviet Attitudes Toward Authority* and drafted the report. In determining the attitudes it was necessary to use all methods of fact-finding except direct observation. For this, second-hand observation was of necessity substituted. There is a full outline of the Soviet systems of authority and the customary responses to them.

Miss Mead writes in technical language but since she is one of our best living scientific writers, her book is readable though technical. She brings out a great deal we should all know about the Soviet people and their leaders.

The Organizational Weapon is also of much value in giving us the Soviet concept of the "combat party" and its uses in the aggressive aspects of Communistic development. There is helpful material also on the vulnerability of institutional targets, but the study is not the practical rule book for handling Communist infiltration which it might well have been. It is the background material for such a book.—G.V.

PEACE THROUGH UNDERSTANDING

THE TAMING OF THE NATIONS. By F. S. C. Northrop. The Macmillan Company, 1952. 362 Pages; Index; $5.00.

Why was the Communism of Mao Tse-tung victorious over the democratic liberalism of Chiang Kai-shek in China? Mr. Northrop's answer to that question is the key to his thesis that power politics and the balance of power will never keep the peace. Nor will a foreign policy limited to dollar aid suffice to win nations to our side. According to Mr. Northrop the most effective measures in international relations are based on an understanding of the minds of foreign peoples as expressed in their religion and philosophy. To be precise, here are the four major reasons that Mr. Northrop discovers to explain Communist success in China:

"First, the Communists give great initial attention to understanding any culture they hope eventually to take over, paying attention to its inner, basic beliefs and mentality as well as its outer needs and forms.

"Second, they put themselves on the side of the resurgence and revivification of the indigenous cultural beliefs instead of merely imposing foreign ideas, as previous imperialisms have done. Every movement for the resurgence of Asia or of Islam is infiltrated and vigorously supported by Communists. . . . The Communists won China in part because they first made the Chinese feel that they were taking them back to their own traditions and making them vital Chinese and vital Asians rather than artificial imitations of Americans and Westerners.

"Third, when the Communists turn to the introduction of their own mentality they begin not with a heavy gift of arms or of technicians or of money but with their Marxist ideas. This is why indoctrination is the essence of Communist practice. The Marxist knows that if you do not capture the mind, anything else you do will not succeed.

"Fourth, the Communists succeeded in China because Chiang Kai-shek failed long before the Americans stopped backing him. He failed because he was unable, while under the pressures of instituting social reforms and resisting military invasion, to make compatible the doctrine of filial piety of his Chinese Confucianism with his Methodist Christianity and Western liberal constitutional nationalism."

Mr. Northrop sees in the challenge of Asia to the West the end of a foreign policy that concentrated too exclusively on relations with Europe. Consequently his efforts here are directed to explaining the subtle and difficult ideologies of Islam and Asia. These are examined against a background of the theory and practice of Russian Communism and of the present

Western civilization in which we play a major role. The author sees hope for an ultimately peaceful world in the trend toward a smaller number of cultural political units, but the process must necessarily be slow and arduous. As long as there is no change in the Communist aim of proletarian world revolution—and there is little probability of such an event—our efforts must be continued to build a world legal order with a police force adequate to restrain Communist aggression.

Whether or not we prefer the theories of international relations advanced by Messrs. Acheson and Kennan or agree with the theory of history developed by Mr. Toynbee, all of which Mr. Northrop believes untenable, we can profit by the latter's analysis, in this book of the mind of Islam, Asia and Russia. It is extremely hard reading with its many philosophic abstractions, but rewarding in the new light it throws on the world we live in.—Brigadier General Donald Armstrong.

"SAUCERS, GALLEY PROOFS"

FLYING SAUCERS. By Donald H. Menzel. Harvard University Press. 319 Pages; $4.75.

Dear Editor:

(1) Received large bundle identified as "Saucers, galley proofs."

(2) After mature deliberation, concluded that this was not a proof that "Saucers were found in Galleys" (Roman or Nautical).

(3) Attempted to evaluate same, playing solitaire with miscellaneous assorted sheets. Learned a good deal about solitaire.

(4) Concluded that Menzel (who has a fine reputation in solar studies) has written a very good book in which (a) he explains both historical and present-day saucer epidemics in terms of honestly seen natural phenomena, (b) disposes of the normal hoaxes, (c) takes a few excursions into "other worlds," (d) gives a scientific basis (sometimes not as quantitative as I should have preferred) for explaining all sorts of fascinating observational illusions, (e) does all this in a rather attractive style.

(5) Book is recommended: (a) subject matter interesting, (b) well handled, (c) provides ample testimony and proof to the infinite capability of human beings to "interpret" what they see in terms of their hopes and fears—not always corresponding to the facts.

(6) Book recommended for: (a) saucer fans, (b) intelligence and briefing officers, (c) the curious. Best regards,—G. C., Flying Sorcerer.

EXCELLENT GUIDE

THE AIR FORCE OFFICER'S GUIDE. By Lt. Gen. George H. Brett, USAF Rtd., and Albert Douglas. McGraw-Hill Company. 190 Pages; Illustrated; Appendix; Index; $5.00.

There have been innumerable editions, versions, and approaches to an Army Officer's Guide and many of them have been inadequate, to put it mildly. But here is a guide for Air Force officers that seems really to fill the bill very well.

First of all, *The Air Force Officer's Guide* is quite complete. That is to say, it has most all of the useful information in it that an Air officer would not find readily available in official publications. Secondly, the book is well arranged and has a complete index and is thoroughly usable. Many of the illustrations in the book are just decoration but those that are essential are well done. And finally, the writing is straight from the shoulder and downright pleasant to read.

Actually this book is similar to good Army guides. You'll find chapters devoted to organization, customs of the service, history of the Air Force, personal conduct, and so on. However, the lively writing and the economy of words make it fun to read. One humorous example of the economy and force of the writing style may be found in a chapter directed at the Air Force wife. It seems worth quoting: "For example, you should never decline a formal invitation from the commanding officer of your husband's base without a sound excuse, such as having just died. . . ." Are there any questions?—R.F.C.

RAILROADS, NORTH AND SOUTH

THE NORTHERN RAILROADS IN THE CIVIL WAR, 1861-1865. By Thomas Weber. Columbia University Press. 318 Pages; Index; $4.00.

THE RAILROADS OF THE CONFEDERACY. By Robert C. Black III. University of North Carolina Press. 360 Pages; Illustrated; Maps; Index; $6.00.

Few persons in either service in 1861 had given much thought to the possible use of railroads for attaining mobility in military operations or even for quick supply of field forces. After the outbreak the railroads themselves hardly knew what was expected of them. Soon they were being used to an extent never before seen in the world's history. That is the story these two books combine to tell.

The demands of the war contributed much to the improvement of our railroads. This period hastened the tying together of many unconnected lines, the change from wood to coal for fuel, conversion from iron to steel, standardization of gauges and equipment, the development of special rolling stock like hospital cars, armored cars, and railway artillery.

Over half of Mr. Weber's solid text deals with operational and economic problems, interesting more to the student of transportation history than to us. But it gets down to the business of war in the latter half. The U. S. Military Railroads was an outfit operating out of the War Department that ran all railroads in areas captured by Union forces. It was not controlled by field commanders. Fortunately, the Army employed experienced railroaders for whom a train's sole mission was to move men and the things they needed to fight a war, from where they were to where they were needed, as often and as quickly as possible. They allowed no interference by quartermasters or generals with ideas of using cars for warehouses or quarters. The accomplishments of USMR are amazing, as Mr.

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Off-Duty Reading

Mountain-Climbing, Diving and Underground Adventures

GOOD books on adventure and exploration are getting harder to come by all the time, but every once in awhile the publishers pay off with the jackpot. This time it is two remarkable books. The first one is *Annapurna,* by Maurice Herzog (Dutton, $5.00), the almost incredible story of the ascent of the highest mountain man has yet conquered. There have been great books on mountain-climbing before, but none has seemed to catch so well the triumph of the human spirit that conquers the great mountains of the world. Certainly nothing less could have conquered Annapurna, for the effort involved to make the ascent, and to endure the tortures of frozen hands and feet during the descent goes far beyond the capacity of mere flesh and blood.

THE SILENT WORLD, by Captain J. Y. Cousteau (Harper, $4.00), takes us in exactly the opposite direction. Captain Cousteau and his colleagues developed the aqualung diving technique that permits free dives and independent movement to depths up to 300 feet. The equipment consists of three small tanks of compressed air, an air regulator that feeds air to the diver automatically, breathing tubes, and watertight glass mask over eyes and nose. The diver has freedom of movement unknown to the helmet diver. Captain Cousteau is a scientist as well as a diver, and has recorded his experiences clearly and brilliantly, debunking on the way a lot of the pure hokum about diving that has accumulated over the years, much of it in the "sea-monster" category. He reports from personal experience that most of the monsters of the deep, including the dread octopus, the moray eel, and the ray, will not attack the "men-fish," and want little more than to be let severely alone. *The Silent World* is a book that adds immeasurably to our knowledge of the sea and of the reactions of the men who go into its depths. It is packed with every sort of thrill and adventure, and the undersea photographs, many of them in a riot of color, are the finest we've ever seen in print.

BRUCE MARSHALL's *The White Rabbit* (Houghton Mifflin, $3.50) is one of the best stories of underground work and escape to come out of World War II. The White Rabbit was RAF Wing-Commander F. F. E. Yeo-Thomas, otherwise known to the French Resistance as Shelley. He was responsible for trying to coordinate French Resistance activities, both on the ground and in England, and was widely regarded as one of Britain's top agents. This book is a real thriller, but it is also a very thorough record of the work of an agent in an enemy-occupied country and of the intricate planning necessary to keep an underground operation going. It is also an almost too-graphic account of what happens when such an agent is captured and tortured, as Yeo-Thomas was.

A. P. HERBERT, the man of many talents, has turned to Napoleon for material for his new novel, *Why Waterloo* (Doubleday, $4.00). Mr. Herbert has written some forty books and a dozen musical comedies, has been a Member of Parliament, and is an accomplished scholar, as this book shows. *Why Waterloo* is a novel of Napoleon in the ten months before the Hundred Days, an attempt to find out what prompted the Emperor to attempt to seize power again. The book is soundly and thoroughly researched and, though many students of Napeoleon may disagree with the author, they'll have a hard time proving him wrong. "The charge," says Mr. Herbert, "is not that one man, through wild ambition, would not accept defeat. It is that the many, having no magnanimity, were unfit for victory. Napoleon did not 'break out' of Elba: he was driven out."

READERS of Combat Forces Journal will remember Stefan T. Possony for his *Strategic Air Power* (Infantry Journal Press, $5.00), still the most comprehensive and accurate study we have of the uses of air power. Dr. Possony has now written *A Century of Conflict* (Regnery, $7.50), an equally comprehensive study of Communist techniques of world revolution as they have evolved through the last hundred years. He shows in detail the essentially military characteristics of communist strategy, and how each phase of the program fits into the Soviet master plan. *A Century of Conflict* is by no means light reading, but it is necessary reading for the student of modern war.—O.C.S.

Weber's statistics prove. It passed its great est test in Sherman's campaign.

Mr. Black's book points up the fact that for the South, with its initial advantage of interior lines, it had to be a railroad war from start to finish. But the Confederacy didn't do its best with what it had. The Union's strong government gave President Lincoln powers he was free to use if he had to. The Confederacy's Constitution emphasized state authority, and under such a setup the central government dared not risk placing its carriers under effective control. But material troubles were many. Not a new rail was produced during the war; gauges were of various widths and schedules erratic; rolling stock and shops couldn't operate for lack of metal; there were too many gaps in what should have been continuous lines; organization in the industry was loose and civilian operators unwilling to make serious sacrifices; operating manpower suffered by reason of a faulty conscription policy. Mr. Black's presentation is further evidence that good military history can be written in popular language. His text is enriched by interesting illustrations and many fine maps (Weber's has neither). For students of the Civil War and for those interested in the growth of the iron horse, the almost simultaneous publication of these two works should be a happy event.—N.J.A.

BOOKS RECEIVED

THE HERBLOCK BOOK. Text and Cartoons by Herbert Block. The Beacon Press. 244 Pages; $2.75. Cartoons and prose by the Washington *Post's* famous political cartoonist.

PSYCHOLOGY IN THE WORLD EMERGENCY. By J. C. Flanagan and others. University of Pittsburgh Press. 198 Pages; $4.00.

DESPERATE WOMEN. By James D. Horan. G. P. Putnam's Sons. 336 Pages; Illustrated; Index; $4.00. The adventure stories of thirteen women.

VERDICT IN KOREA. By Robert T. Oliver. Bald Eagle Press. 207 Pages; $4.00.

THE WOMAN WITH THE WHIP. By Maria Flores. Doubleday & Company, Inc. 268 Pages; $3.50. A biography of the late Eva Peron by a woman who was born and raised in Argentina.

LIBERAL ARTS DICTIONARY in English, French, German, Spanish. Edited by Mario A. Pei and Frank Gaynor. Philosophical Library. 307 Pages; $6.00.

CITIZENS OF THE WORLD. By Stringfellow Barr. Doubleday & Company. 285 Pages; $3.00.

SOVIET OPPOSITION TO STALIN: A Case Study in World War II. By George Fischer. Harvard University Press. 230 Pages; Index; $4.00.

WIND, STORM AND RAIN: The Story of Weather. By Denning Miller. Coward-McCann, Inc. 177 Pages; Illustrated; Index; $3.95.

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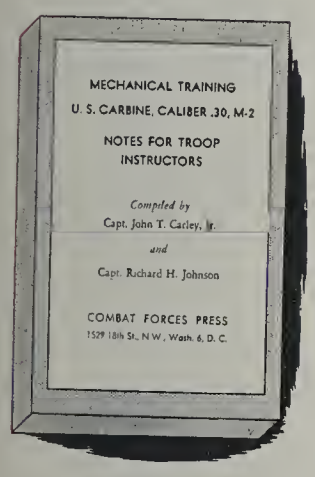
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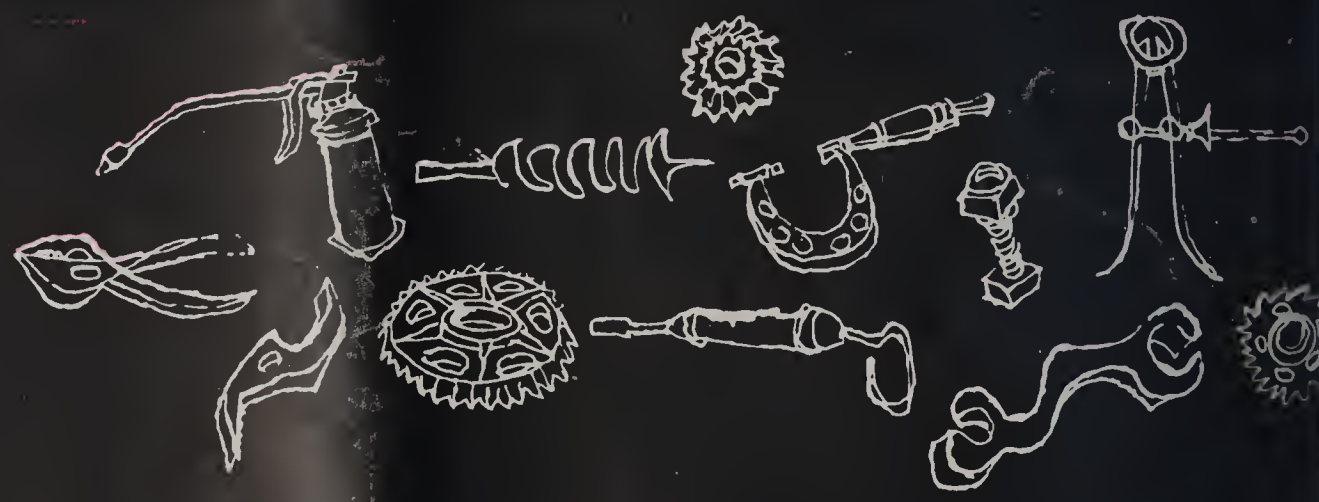
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COMBAT FORCES *Journal*

Infantry Journal • Field Artillery Journal

APRIL 1953 50¢



GENERAL VAN FLEET
REPORTS ON THE EIGHTH ARMY

The AAA Gets the Army's First Electronic-Controlled Gun

The "Skysweeper"—the Army's first completely electronically-controlled artillery piece will spot and track with radar, and automatically aim and fire at enemy aircraft flying at low or medium altitudes.

The 75mm gun can fire forty-five 12½-pound high explosive shells, armed with a proximity fuze, a minute. The ammunition is automatically fed into the gun by electrically-operated loader-rammers from two 11-round magazines.

The radar sweeps the entire sky automatically once every forty seconds and can detect aircraft within a 15-mile radius. It transmits its information to the electro-mechanical computer which automatically plots range, speed, and course of the approaching target and determines where the gun must point so that the shell fired at any instant will intercept and destroy the target. The gun can be fired either by the computer operator or the radar operator.

The complete system—gun, radar and computer—is mounted on one chassis and is towed by a cargo tractor. It weighs ten tons and in traveling position is 25 feet long, 8 feet wide, and 7 feet high. It is air transportable.

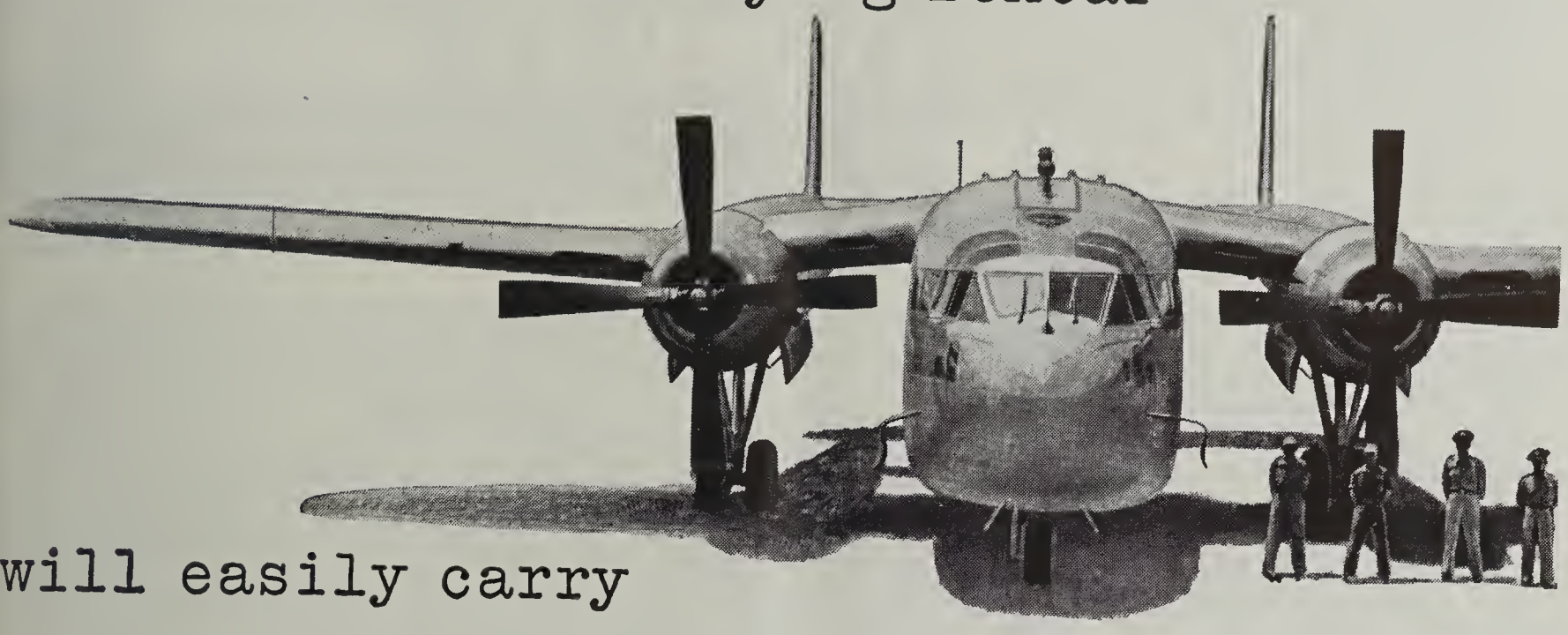
Development of the gun was begun late in the Second World War. It has undergone extensive tests and a large amount of "bug finding." It has been used by training units but not in combat operations.

Maintenance men assigned to the gun get a 37-week training course at Aberdeen Proving Ground—one of the Army's longest training courses.



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A Fairchild C-119 Flying Boxcar



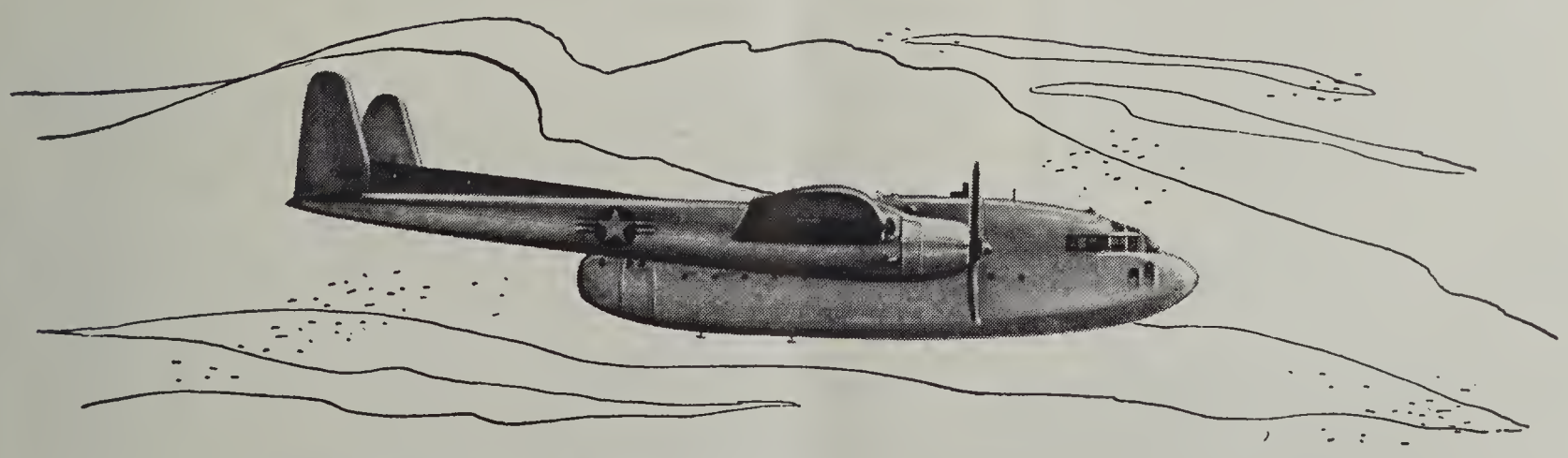
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Vol. 3, No. 9 — **April, 1953**

COVER: To keep it firing, keep it clean. (A Signal Corps photo of a 45th Infantry Division machine gun in Korea.

THE AAA GETS THE ARMY'S FIRST ELECTRONIC-CONTROLLED GUN Inside Front Cover

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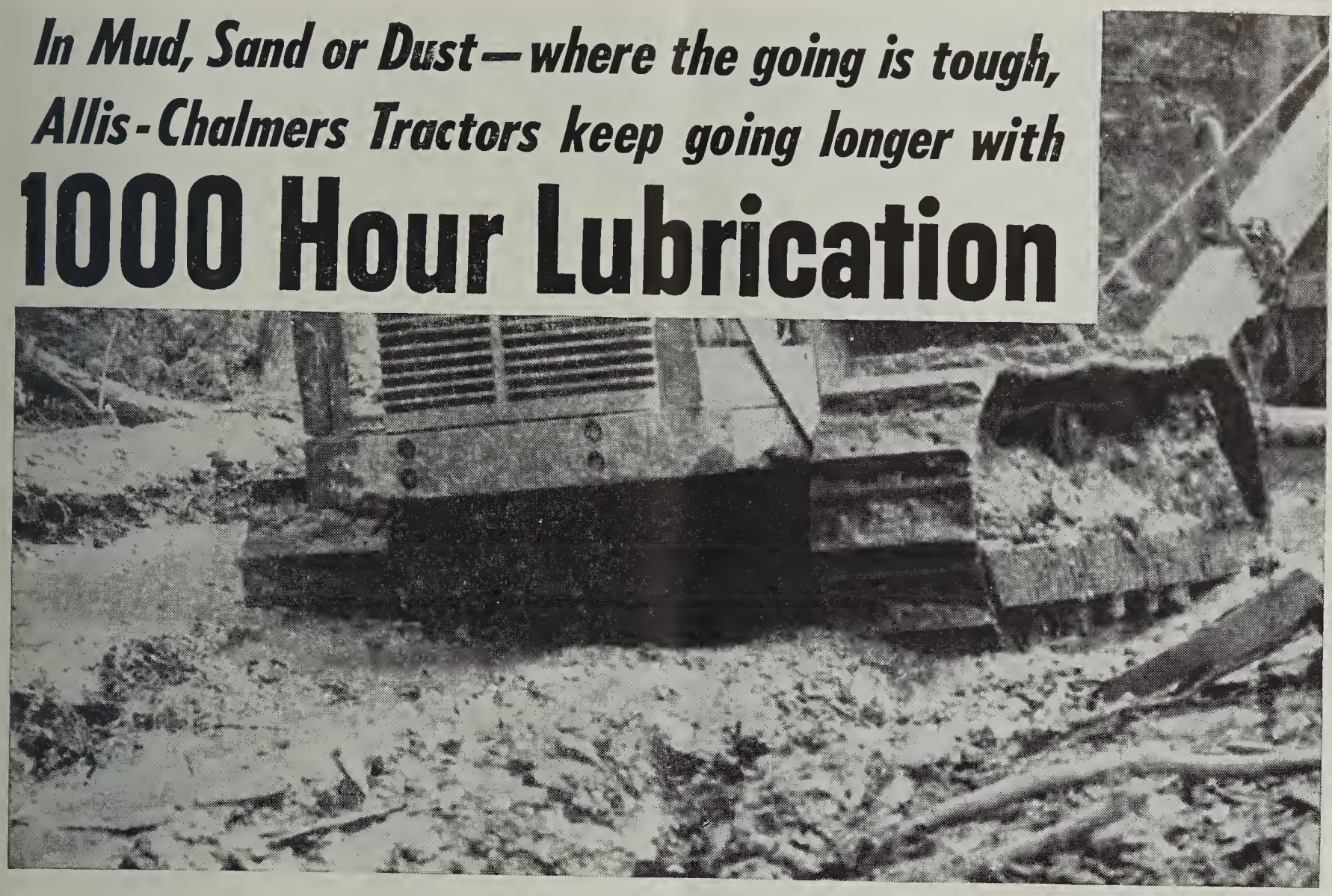
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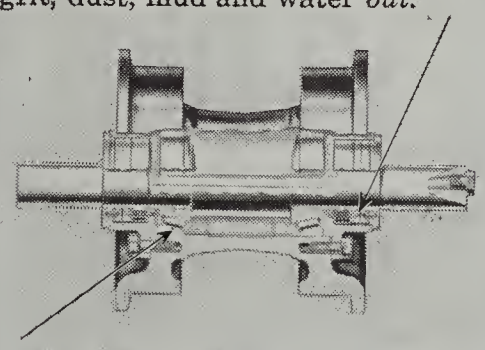
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AVIATION PROGRESS MARKED—Here at Kitty Hawk, N. C., the aviation world recently paid tribute to the Wright Brothers for their achievement of powered flight in a heavier-than-air machine in 1903. And among the aviation pioneers taking part was Igor Sikorsky, whose aircraft have made a major contribution to air progress.

AROUND THE WORLD WITH THE FLYING JACK-OF-ALL-TRADES



ROTARY-WINGED PACK TRAIN—Airlift of vital construction materials, key personnel, and survey teams is routine on the Aluminum Company of Canada's vast smelting and power development project in the rugged Kitimat region of British Columbia. In a few hours big Sikorsky S-55s, operated by Okanagan Helicopters, Ltd., can haul loads mule trains would need days to deliver.



EASY DOES IT—A big H-19 Sikorsky carrying wounded men settles gently to the lawn in front of the Naval Medical Center in Bethesda, Maryland, ending a mercy flight which began on the battlefield. Regular transfer of Korea casualties arriving at nine military air terminals in the U. S. direct to service hospitals is planned by the Military Air Transport Service.

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"SKY PILOT"—Ministering to the spiritual needs of men at sea is often difficult because of rough seas and the distance between ships in a fleet. But with helicopters such as the Sikorsky HO3S-1 shown above, chaplains can move from ship to ship with ease and come aboard by landing or by rescue winch.

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One of the Four Divisions of United Aircraft Corporation

★ To the Editors . . . ★

Infantry Morale

To the Editors:

The January issue carried three very excellent articles, namely, "Does War Worry You," "What's Wrong With the Infantry," and "What's in a Name," all pointing out places where our combat forces can be improved.

The problem of raising the morale of combat forces and in particular the infantry has brought about the addition of all sorts of trappings to the uniform of the infantryman. This is not, in my opinion, a solution or even a step towards a solution. A short time ago I had the distinct displeasure of viewing three newly trained infantrymen wearing the newly authorized morale solution, namely the scarf. It was worn with the khaki shirt collar folded over the blouse collar, covering all insignia, and looking for all the world like the costume of a "B" movie Continental gigolo. There was nothing in the bearing, nothing about the way the uniform was worn or maintained, nothing about their actions to lead one to think of them as Infantry. Merely a blue cloth around the neck trying to overcome and substitute for a lack of pride. Hanging fourragères and other decorations on the uniform of an individual who has nothing else to carry him along does not make an Infantryman or soldier. Pride in himself, his uniform, his unit and his country will do what the decorations will not do.

Pride can be developed by instilling aggressiveness and self-confidence in the recruit (and I think this term should be revived).

In our training divisions today we present to the new recruit his dress uniform, the division and regimental insignia and decorations which were won with blood and effort and that are held high in the hearts of the men who won them. These, along with socks and underwear! The next night at retreat the recruit can fall out wearing all of these symbols of soldiering without having done a thing to earn the right to wear them. He has no immediate goal during training, except maybe to think about getting out of the service. From that time on, the past accomplishments of any unit he may belong to mean little or nothing, unless special effort is taken, because he has had to do nothing to reap the benefits of such honors.

If the soldier wears his dress uniform for the first time when leaving recruit camp and reporting to his new unit, and if the new unit points with pride to its achievements, its patch, its distinctive insignia, and if the new soldier (this is his title now) is taught these things, he then adds these elements to his uniform and he has greater pride. He is now the member of a distinguished group, both in the present and historically. Pride again.

That the infantryman should have something distinctive about his uniform is certainly valid. The paratrooper has his wings and boots; the tanker has his hat to wear full and on the left side of his head. Possibly a blue crown to the overseas cap of the Infantry and a greater effort to qualify and award the Expert Infantryman Badge would make the uniform distinctive.

Lt. David O. Meeker, Jr.
USAR
6035 N. Olney Street
Indianapolis, Ind.

Dutch Reply

To the Editors:

In his article "People's War" in the December issue, Lieutenant Colonel Edward D. Raymond stated:

"The Indonesians who had never accepted Dutch control, openly resisted Dutch efforts to reoccupy the country at the end of the war and effectively denied a large part of the country to the Dutch military forces. As a result, the Netherlands government granted virtual independence to the area."

Sirs, it is my privilege to assure you, and I do so proudly, that whenever the Dutch military forces were ordered to seize and occupy any "effectively denied large part of the Indonesian country," it *never* failed to carry out its mission.

Unbelievable as it may seem, we did receive wholehearted cooperation which made it possible to control large parts of the country by platoons and patrols, rather than by strong units.

However, action was restricted, we always had to carry out a small part of limited warfare: no trespassing of superimposed borders. (Did you ever hear of the Yalu River?)

Lt. M. E. A. Gobus
Netherlands Army
34 Lijsterlaan
OSS, Holland

Efficiency Reports

To the Editors:

Many comments and criticisms have been made about Officer Efficiency Reports. Recently the Air Force distributed a memorandum cautioning commanders to use extreme care in preparing them. Most of the criticism is directed at the commander in his appraisal of a subordinate.

In order to get a more accurate evaluation of an officer's performance, I suggest that superior, like and subordinate officers submit reports on fellow officers. In a company, platoon leaders would be rated by the company commander and the other company officers. The company commander would be rated by the battalion commander, other company commanders, and the platoon leaders. Staff officers in headquarters would be rated by the commander, other staff officers, and subordinate officers dealing directly with that particular staff officer. An officer would be required to make out a minimum of five and a maximum of ten reports on other officers, depending on his position. Conversely, every officer would have five or more ratings submitted on his performance during a given period.

A similar system has been used at Officer Candidate Schools and at the Military Academy. Anyone who has used this system of "buddy lists" admits that it is the best indication of the leadership qualities of the group. Advantages of this method are that by increasing the number of ratings for a given period, the human element is varied and the rating base is widened; every officer would have a small part in the evaluation and betterment of the entire officer corps.

Disadvantages are that a comparatively high number of reports (ten in some cases) must be submitted by some officers and an increase in the work load of the office that evaluates the reports.

The reciprocal method can either replace the present system or it can be used by the Army yearly or periodically as a check against the results submitted under the present system.

Lt. F. A. Wolak
Sandia Base
Albuquerque, N. M.

Little Men and Big Base Plates

To the Editors:

Recent announcement of the development of a new light 81mm mortar is cause for celebration. I can't help remembering the backaches encountered by Fifth Army troopers in lugging the "iron monster" over the mountains of Italy during World War II. Somehow it always seemed that the smallest men in the battalion were assigned to the Heavy Weapons Company (excepting those who fell heir to the rifle company's BARs). And in the weapons company itself there was a further process of separation of the small men from the smaller with the latter traditionally coming to rest as gunner and assistant gunner of the mortar squad.

Many is the time I've climbed a hill behind one of those little men loaded down with a base plate strapped on his back. All that could be seen of him was half a head above and two legs protruding to the ground below. He'd sweat and he'd curse the weight and the cumbersomeness of the thing. But eventually he'd get where he was going and proceed to set up shop.

No need to say I felt sorry for the little guy (and even for the occasional big guy who caught the assignment). But did you ever try to separate one of them from his mortar, to give him a lighter assignment? Impossible!

Since we can't get the little man away from his mortar and more specifically from

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MILITARY NEWS from the world's largest light plane producer



FIRST TURBOPROP LIGHTPLANE COMPLETES TEST AT CESSNA

Turbine in L-19 "Bird Dog" eliminates Vibration and Cooling Problems; Operates on almost any kind of fuel.

The Cessna XL-19B, world's first turbine propeller light airplane has successfully passed its initial flight test, the Cessna Aircraft Company announced recently.

The unusual flexibility of a turboprop engine—as revealed in the plane's first flight — provides control characteristics that are far superior, in some cases, to the L-19A, Cessna's combat-proved observation plane.

Advantages of the turbine over conventional engine include simplification of power plant installation, elimination of cooling problems and airborne vibration, plus ability to fly on almost any type of fuel.

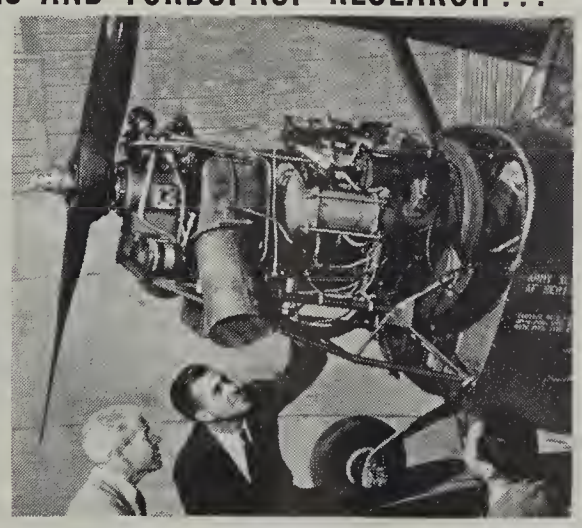
Last year, much of Cessna production went to U. S. Armed Forces. Today, in Cessna shops at Wichita, Prospect and Hutchinson, Kansas, military work booms on a variety of new assignments . . .

Helicopter development for the Navy, faster assembly of battle-proved L-19 observation planes for the Army, National Guard, and Marines, more bomber and fighter sub-contracting for U. S. Air Force planes . . . plus accelerated commercial research on other developments including boundary layer control which speeds the take-off and landing of high-speed aircraft.

CESSNA AIRCRAFT COMPANY, WICHITA, KANSAS

IN ARMY OBSERVATION PLANES AND TURBOPROP RESEARCH . . .

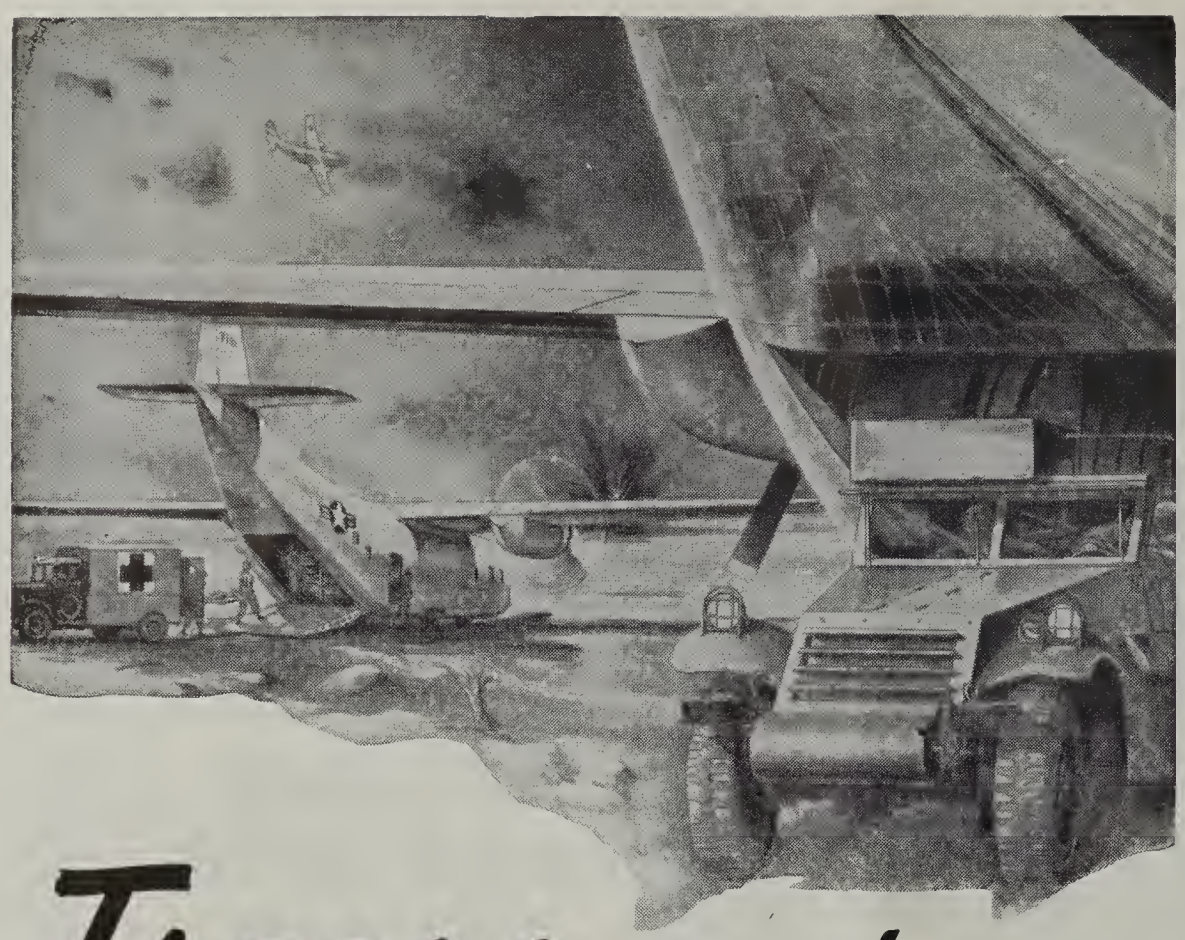




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Chase Assault Transports are the answer to speedy delivery of troops or equipment and the fast evacuation of wounded troops to areas of safety.

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STROUKOFF AVITRUC

his base plate, let's go whole hog and not only develop an improved mortar, but get rid of the old outside base plate, too.

It really isn't difficult. The purpose of the large base plate is to absorb the recoil of the propelling charge from the tube. With new lightweight metal giving us a lighter tube, there is no reason why we can't incorporate the recoil mechanism right into the tube. It could be done by means of a spring contained in a collar locked to the base of the tube. Or if we want to get fancy, we could use a simple hydraulic system to take up the recoil. Either way, the need for a shock-absorbing base plate would be eliminated so that we could probably get away with using one about the size of the present 60mm plate.

CAPT. ALBAN E. REID, JR.
ROTC Instructor Group
Yale University
New Haven, Conn.

Board, Plotting, M1A1

To the Editors:

Reference is made to your excellent article on the Observation Battalion in February issue. Proper recognition of this unit is long overdue. Your article will do much to familiarize officers with its capabilities and limitations.

However, you slipped at one point on page 26. The proper name for that equipment is board, plotting M1A1 (for sound ranging).

LT. FLETCHER W. FRALEY
449th FA Obser. Bn
Ft. Bragg, N. C.

The CIB

To the Editors:

I would like to comment on Corporal Gordon L. Scheopp's letter in the February issue.

What he wrote about service troops not being qualified for the Combat Infantryman's Badge is true in most cases. Still, I would like to point out that during the early part of the Korean War, all personnel assigned to divisional units (as well as units of corps and sometimes army) were serving for the most part as riflemen. Since this was the case, I see no reason why the men assigned to infantry units should not have been awarded the CIB if they had seen action in the lines.

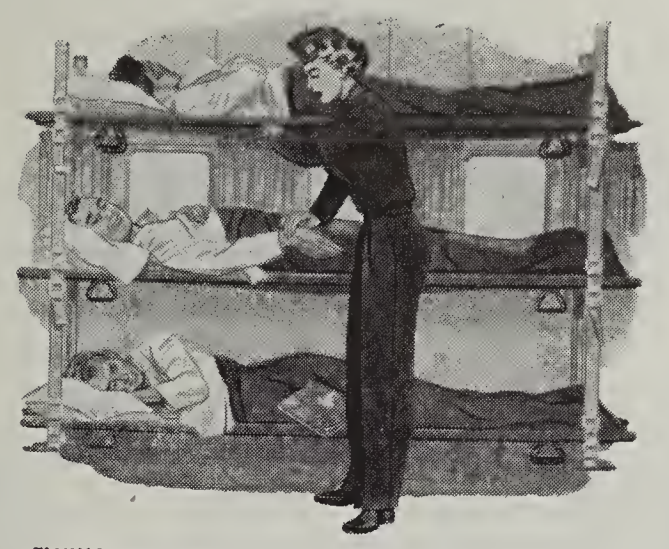
If anyone needs proof of the fact that some service personnel did fight as infantrymen, I would like to quote from the official wording of the citation awarding the DUC to the 24th Infantry Division: "Throughout the entire period of this heroic action, officers and men distinguished themselves by conspicuous gallantry and courage. Service troops fought side by side with riflemen . . . in fact every man in the division was engaged in battle."

Because of the facts, I believe those men in infantry units, no matter what their jobs may be, should be awarded the CIB

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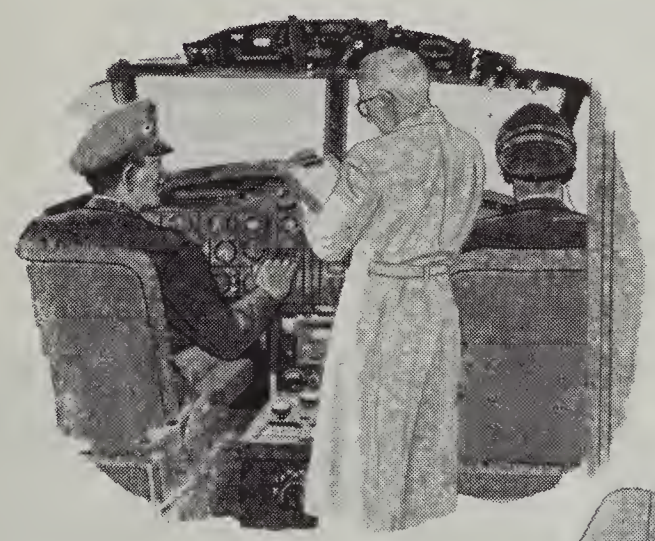


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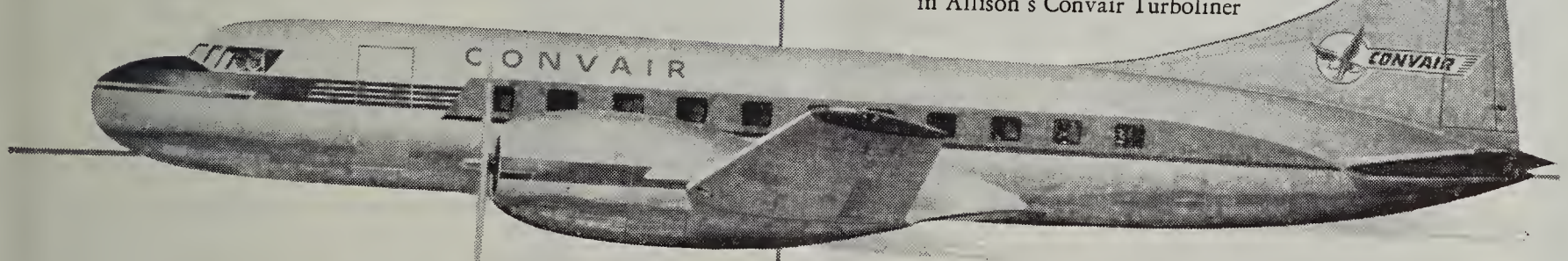
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when; and if, they earn it as riflemen earn theirs. I disagree with the Corporal who says: "Any time the Badge is issued or worn by a driver or cook or clerk it is being disgraced," but I will go a little further and say the Badge should be awarded to any member of an infantry unit in combat who earns it as it was meant to be earned. A man's MOS or job doesn't matter when the chips are down.

EX-19TH INFANTRY

Civilians in Cars

To the Editors:

I do not know if there is an agency in the Army that takes up such matters, but since most military men read the JOURNAL, it is a good place to bring out a point that troubles me.

The bitter and unfortunately steady cry of the taxpayers against the waste and/or abuse of the Army, and in particular the officers, sometimes has a lot of truth in it. But just as often, as we all know, it is unjust. But does anyone take the time to try and run down the source of these attacks? At this post, within the past 60 days, there have appeared in the daily bulletin constant reminders to members of the military establishment about using government transportation for their own personal use. In the fifteen and a half years I have been associated with my chosen profession, I have yet to see an out-and-out abuse of transportation by any rank. At the same time, I have never ceased to hear the civilian population scream about it. I have made it a point to look into these complaints and now I feel that I have sufficient background material to open my big yap and make a suggestion.

Let's take military vehicles that are to be used or operated by anyone not wearing the uniform and paint them a nice civilian black, and put on the standard U. S. Government license plate.

To back up my suggestion, I am reminded of these things which I have seen —and you too:

The GI sedan I spotted, all complete with well-clad civilians; another doing 60 m.p.h., complete with shirt-tailed civilians, plus female. The many GI sedans to be seen up and down all our highways. I could go on for pages.

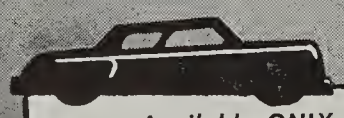
I won't deny that many of these civilians may have been on very official missions, but to John Q. Public, those were Army sedans and that is all he cares about. It might cost a little to mark these vehicles distinctively, but then there would be no doubt in the taxpayers' minds as to who was driving what. It would also reduce a lot of false accusations against uniformed men and women.

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Critic from Spain

To the Editors:

If you will permit some more sideline sniping from Spain, let me comment on one paragraph from the article by Colonel Robert B. Rigg in the January issue. Paragraph seven says, "The Chinese Red Army never militarily licked the mass of Chinese Nationalist armies in the Civil War."

If Colonel Rigg meant "physically" instead of "militarily," why didn't he say so? If he meant "militarily," then he's wrong. Persuading an army to defeat in droves is one of the smartest military victories possible.

Then he goes on to say, "the entire Red Army of China is not a volunteer army." Well, what about it? Neither is the U. S. nor the British, nor the French, nor any other major army.

"Until Korea, it had never faced modern fire power on the ground, in, or from the air." I seem to recollect that the Japanese had modern enough fire power to cause the American Army considerable trouble, and the Chinese faced them.

If we're going to "face up to the facts"—as the head to the article suggests—let's face them presented in straight language. The idea behind Colonel Rigg's article was excellent, and the last paragraph contained the real punch. But most of the article is "fluff."

Let's have some more Hargreaves from time to time. He writes fancy, but good.

LT. RIGHTER

Training Reservists

To the Editors:

Seems as if I must sound off periodically. If I don't, I'll flip a lid. It's like voting: if you don't vote, you've got no right to squawk. If you can't suggest something better, or different, at least, you have no right to inflict your opinions out in the open and in front of everyone at the officers' mess bar.

My subject this time is the training being given under the ORCTPs to Army Reserve units. I'm firmly convinced much can be done to improve it, particularly in those units located in the more sparsely settled states. How we envy those unit instructors and military districts close to an army headquarters or in the metropolitan areas with all of their personnel and training aids!

First, it is assumed that the purpose behind the training of the Army Reserve unit is the formation and instruction of a cadre which will serve as a base (or "hard core" as it is now known) and upon which a full unit can be formed. At least this is my conception. Therefore, a cadre strength is assigned a reserve unit made up of the key MOS positions within the unit.

If a unit commander can recruit an individual such as a first sergeant or a mess steward with previous experience, his worries are over. He has an MOS vacancy



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and a man qualified by experience to fill the MOS. All that is necessary is to keep the man abreast of new ideas, give him a chance to brush up his knowledge every so often, and to offer a chance of promotion. No sweat, no strain!

However, for some reason known to only those reservists who were recalled involuntarily, the chance of a unit commander recruiting such an individual is extremely slim. Recruits mainly come from the 17-year-olds, who, while not immune from the draft, nevertheless like the idea of going on active duty as an NCO rather than as a PFC as they would if drafted.

These recruits, being fresh from high school, usually have little or no military experience. Yet, the unit commander, having MOS vacancies in his cadre, must assign them to those vacancies, so you may find, upon inspecting a unit, the approved assignment of a fresh, clear-eyed youngster to a master sergeant's slot and MOS and wearing the stripes of a private first class. You ask him how long he has been in the unit and he may reply nineteen months or so. His only gripe is that they haven't promoted him to the grade his slot in the cadre calls for as the recruiting officer promised. You ask him what he knows about his responsibilities and duties in his assigned job and he points to his 100 per cent attendance record. He hasn't attended a service school, for his civilian job or schooling forbids them, yet here is a man, a member of a unit for more than a year, present at every meeting, and who, through no fault of his own, has no knowledge of his assigned job. Furthermore, he will be promoted soon, for morale must be maintained. In an emergency he mighe be ordered to active duty as an individual, or his unit called out, and you would have a soldier wearing the stripes and knowing little or nothing of the duties expected of his grade and MOS.

Turn a page and see what could be.

You have the same recruit. Outfit him and give him his twelve hours of basic instruction under the best noncoms you have. Or better still help him attend basic training at one of the training divisions. Then give him an hour of a general subject suitable to his type unit at his first meeting after basic, by any method other than a lecture. The second hour, place before him the first of a series of subcourses designed to give him theoretical knowledge of his assigned MOS. Tell him that, upon completion of the first subcourse, he'll be promoted his first step up the ladder. Let him study his subcourse on the following evening meetings under the eye of the unit instructor and keep drumming it into him that the speed of his advancement depends entirely on him.

Furthermore, encourage him to take his subcourse home with him.

He completes his first course, receives a test from the unit instructor, completes it satisfactorily, and receives a certificate that he is eligible for promotion. He then hands in his certificate to the unit commander who, provided he also concurs, promotes the recruit. The unit instructor then issues him his second course, telling him that when he completes it, his examination will include a little practical demonstration of his knowledge.

His education proceeds by the subcourse method, but before he receives his "sergeant-first" or "master," he is required to complete a short tour of active duty at a service school suitable to his MOS.

In addition, his field training period during the year is devoted to practical training in his MOS. He is grouped with several others having the same MOS and his group receives on-the-job training under the supervision of a trained instructor.

Granted, it would appear that this setup of training is going back to training by correspondence course, and is directed at the housekeeping MOS rather than the technical ones. Possibly so, but, in a comparison between it and the present methods, this one would appear to go farther towards the original purpose—that of creating a trained cadre. Even if he has been unable to get practical experience, he would be better qualified by reason of theoretical knowledge of what his duties were than if he had no knowledge of them at all.

The cost of preparing subcourses would be considerable, but there would be some return for the expenditure. Furthermore, by enabling a reservist to progress as fast as his own efforts permit him, interest would be created and better morale would result. At least, the difference between a "sergeant-first" on active duty and one on inactive, both with the same MOS, would be less. Also, even though a reservist cook might not be able to make an omelette, at least he would know he must use eggs and a pan.

The need is training in the garden variety of housekeeping MOS for the many men who can't or won't attend Army common-specialist schools.

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The Responsibilities of the JCS

The Chairman of the Joint Chiefs of Staff gives a soldierly explanation of the role of uniformed men in a democracy

General of the Army Omar N. Bradley

IT is easy for the armchair strategist to choose a resolute and bold course of action for his country. I know that I have many acquaintances who urge upon me one or several . . . military actions. . . . I know that many people would like to ask at this point: What do the Joint Chiefs of Staff recommend that we do? What should be our national strategy and national policy in this perplexing situation?

I believe it is important for all of us to understand the role that the Joint Chiefs of Staff play in our national policy-making, because many people believe that during times of stress like these "the military," as we are loosely labelled, have dangerous and undue powers in the influencing of our national policy. Actually, the role of the Joint Chiefs of Staff, by law and by practice, is a subordinate role, and one which we zealously observe.

I would like to state my own personal views on what recommendations are actually in order from the Joint Chiefs of Staff. I have outlined these views to the Secretary of State, the Secretary of Defense, and to Congressional committees, and in all quarters they have seemed to meet with general civilian approval.

It is important to remember—and in the Joint Chiefs of Staff we are constantly reminding ourselves —that military policy, and its included strategic planning, is not *separate and distinct from our foreign policy. The two of them are part and parcel of our over-all policy for the safety and security of our nation.*

UNDER the National Security Act, the Joint Chiefs of Staff are charged with several specific duties. Among these is listed "the principal military advisers to the President, the National Security Council, and the Secretary of Defense." We are charged with making strategic plans, and providing for the strategic direction of the military forces of the nation in peace and war.

When the Government is considering the establishment of policy, the President receives recommendations from the Department of State from a foreign policy view. He considers domestic political advice, including guidance from the Congress and existing laws. He studies the economic implications of the specific problem, considers the psychological aspects of the policy, and from the Department of Defense he gets military advice in connection with the proposed policy. The agency with which he discusses all the factors and which assists him in arriving at a decision is the National Security Council.

As the military advisers of the Government, we feel that our job is to take the various courses of action that are suggested in the problem and analyze them from the military viewpoint, telling the President, through the Secretary of Defense, what our *capabilities* are and as far as we know, what risks are being taken when we pursue either this course or that course.

GENERALLY, however, I do *not* feel that it is Joint Chiefs of Staff responsibility to *recommend specifically* which course of action the Government should take. We should confine our part to pointing out the military implications and military capabilities. Then, of course, after a decision is reached, we make recommendations on the military action required to carry out such decisions. No matter what the decision becomes, once it is made we do our utmost to carry out the military responsibilities which it involves.

Perhaps some people might feel that the Joint Chiefs of Staff should stand up and resolutely and strongly recommend a national policy which we *would prefer, but to date I have not been convinced that this is the proper role of a military leader. I do not believe that military strategists should choose the course of government action; and I do not believe that we should publicly, or before Congressional committees, fail to support the decisions made by our civilian superiors.*

In Congressional hearings we feel free to give our personal opinions and to point out the same capabilities and risks that we had pointed out before any decisions were made—so that the legislators will have as full and complete information as the Secretary of Defense, and the Commander-in-Chief, and the Secretary of State—but I do not believe that we should go beyond this.

From an address by General Bradley delivered at Palm Beach, Florida, on 2 March 1953.

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Report on the Eighth Army

General Van Fleet tells Congressional Committees:

- The U. S. soldier "measures up to anything you ask of him"
- The ROKs "are always surprising you with an exceptional performance"
- The enemy is four-fifths Chinese, one-fifth North Korean

Condensed and edited from the record of the open hearing before the House and Senate Armed Services committees.

U. S. Forces

Q: General Van Fleet, I was interested in your comments about the extension of draft service to 30 or 36 months. How much training would that give them?

Van Fleet: Well, the boy today gets 16 weeks of training in the States, in our replacement-training center. Then, after a short leave home, he is shipped overseas and we, perhaps, get them at the end of, well, between their sixth and ninth month of service, that is, when they arrive in Korea—that is a basic soldier, we will say, a rifleman for an infantry outfit. He is given further training there, unit training, with his outfit, and in due time he fits in and becomes a member of the team.

By the time he may show some potential for a leadership job or a skilled job, he is, of course, recommended, and goes to further schooling in Korea. When he comes back from that, which may last from a month to, oh, three or four months, depending upon the course, he has a short time to do. He still is usually a private or a private first class, and in that short period of one or two months still to do, he may become a corporal, but if he has been there longer he might work up to a sergeant or maybe a sergeant first class. But by the time he gets good, we rotate him home, so we are always short 50 per cent or less of the skills and junior leaders required for a field army.

We do not have them long enough after we get them good to have them give a proper return for the investment we have in them. I would say, let us train them first, and then use them for the period of combat necessary, and send them home and discharge them. The moment they arrive home, we should discharge them.

Q: Could you give us a little more in detail about the morale of our own men?

Van Fleet: I believe our American boys, grown up in an age of world trouble, have heard an awful lot about Communism as it has been debated in the United Nations and seen and read about, and that boy is acquainted with its terrible condition, and he accepts his lot as having to do



GENERAL JAMES A. VAN FLEET

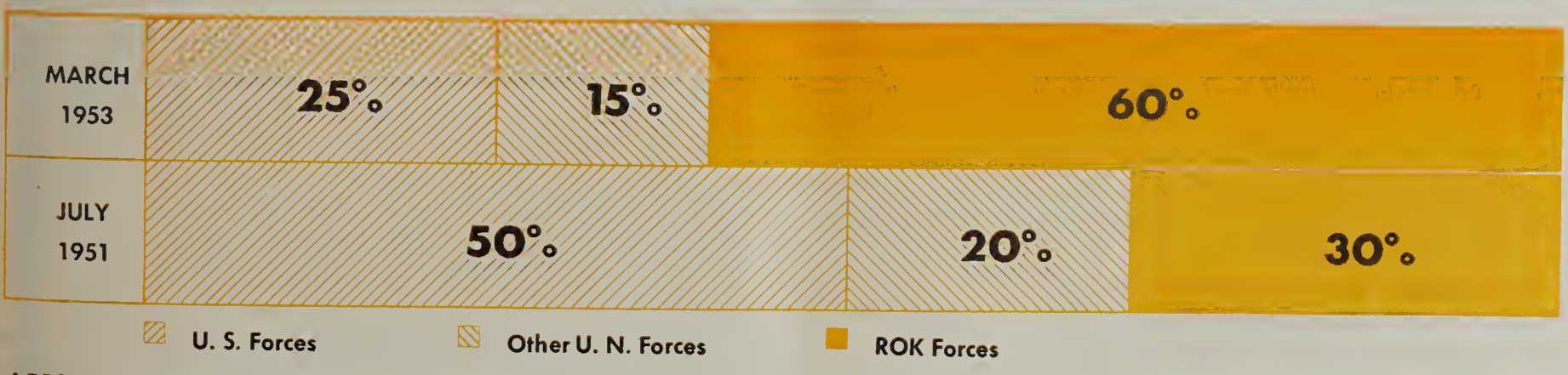
something about it. When he is properly indoctrinated in the Army, he is glad to wear the uniform, and even happy that he becomes a rifleman, very proud of himself as a combat rifleman, a doughboy.

Now, in Korea he does not stay there too long. The rotation is a great morale factor as far as doing his duty and seeing the end of it, to come home and let somebody else do his share, as it should be in a democracy. That is costly to the military to do it that way, but it does spread the hardship around to a larger number, and it does keep him feeling that it is a fair proposition while he is in Korea, and he is willing to do his part.

Q: And he seems to sense the situation more so maybe than we do here?

Van Fleet: He measures up to anything you ask of him.

Q: Since June, 1952, the expiration of the 24-month period when inductions first began, have you had a shortage of men to carry on even the limited mission that you have?



Van Fleet: During most of 1951 we were at full strength and at times over strength. We reached a peak strength of 108 per cent, or 8 per cent over strength, at one time, and that is a very healthy condition to have a little fat. It permits you to operate about at normal strength because there is always somebody on leave, emergency back to the States, on rest and recreation to Japan, or sick in hospital, various causes; you have from 10 to 15 per cent of your men away. So it lets you operate close to a hundred per cent having that extra fat.

We expected that to continue. In fact, we were told many times by visitors from Washington, who were interested in personnel, that they would build it up to a 15 per cent over strength especially during periods when the program of rotation was put into effect, we would have a 15 per cent over strength, so as to permit an overlap in Korea, where the man arriving would be there and broken in before the man he replaced starts home; they built up to 115. Well, instead of building that 15 per cent over, when they put the rotation plan into effect, beginning about the winter of 1951-52, the over strength kept going down instead of up, until we shipped them home before the replacement arrived—that is the situation today—and we have about 89 per cent strength total on paper, but in ranks it is, of course, less than that, due to normal losses.

Of that 89 total strength in the skills and leaders, junior leaders, it is about 50 per cent. In some categories it is as low as 30 per cent. . . .

Q: Do our allies replace their troops—do they keep their replacements up?

Van Fleet: The U. N. units are kept at full strength, and at times many of those battalions are over strength. They have a rotation policy that goes by units more than it does by individuals. For instance, a new battalion will come out from England, and the old battalion in Korea will go home. The same way with some Canadian battalions, the Princess Patricia Regiment.

Q: You do make the statement then that in terms of ammunition and in terms of men that you have not had the supplies or the men to carry out even your limited mission. Is that a fact?

Van Fleet: Yes, sir.

Q: How does our fire power compare to that of the enemy?

Van Fleet: Well, there are three great characteristics of the Eighth Army which we have a complete supremacy in. Those characteristics are quality of troops, fire power of our weapons and mobility or flexibility to meet situations, and only a United States Army combines those three qualities to get maximum good from them.

Q: Would you mind touching briefly upon the morale of the troops? No war was ever popular, of course; this is perhaps one of the most unpopular ones in which we have ever engaged. But we were rather surprised, if not amazed, at the high spirit of morale of the men up at the front.

Van Fleet: It is the mission of any commander to keep his unit fit, ready and willing for battle. If he can't do that, he had better be replaced. Our men are fit. They are continuously being trained to be better so as to be ready for anything that may happen. More than that is the heart that goes into it. They are willing to take their—

Q: But the fact that you are in the stalemate makes it much more difficult for you to maintain a high spirit of morale; does it not?

Van Fleet: The job is greater; yes, sir.

Q. The job is greater. The men are not only willing but eager to go if given a green light?

Van Fleet: That is correct, sir.

Q: Well, what recommendation do you have [in the replacement system]?

Van Fleet: Our replacement system is not satisfactory today . . . [in] numbers and quality.

Q: Numbers and quality. In response to the chairman's question with respect to the readiness of the forces, you said that they were the best-equipped, housed, fed, and so forth, of any American force. I noted that you did not include the best-trained force that America has ever put in the field. Did you omit that quality purposely?

Van Fleet: Yes, I did. An outfit becomes a veteran outfit in its practice in its trade at full scale. The Eighth Army has not been in hard battle for some time. We have endeavored to maintain its efficiency by training in the rear areas and by occupation of a defensive line with an active program of patrols, patrolling. But that is not fighting, to become expert in that very difficult trade.

Q: General, many of the mothers in this country whose sons are sent to Korea have the view that the fact they are in Korea they are under constant danger from the enemy.

Would you comment on the extent of danger of the large numbers of American troops who go to Korea, and what proportion of them are in that danger area?

Van Fleet: Well, we had at one time half of our home divisions in reserve. That cuts it down 50 per cent. Now, of our divisions there, I guess that represents not more than three-fifths of the total who go to the Far East—maybe 50 per cent. Only 50 per cent get into the fighting divisions. So that is a 50 per cent chance. Then 50 per cent of the time they are in there they are in reserve. Then on the front line, half of them are in reserve. One regiment of three is in the reserve, and of the regiment on line, one battalion of it is in support. So it goes on down. So, actually you get down to a small percentage on the front line. . . . The person who carries the burden is usually the man who is getting that combat pay which you authorized. He is in the danger area, being shot at. That is, about 25 per cent qualify.

Q: If you increase the period of training of U. S. troops in the United States, would you correspondingly decrease the period of time the individual would spend in Korea?

Van Fleet: Yes; but I would increase the draft period from 24 to 30 or 36 months. . . . Prepare that American boy for a better chance to live, but not use him any more than we are now doing in battle. His period of time in facing enemy bullets would be the same.

Q: Any increase in the period of training, then, before he is shipped overseas, would entail corresponding increase, say, in his total length of service?

Van Fleet: Yes.

The ROKs

Q: General, there has been a great deal of interest here about the ROK troops. Can you tell us something of their training?

Van Fleet: Of course, in the early days they got no training. They just would go out and gather in thousands of them, and say, "Here is a rifle," and show them how you load and pull the trigger, and he was in ranks in a matter of a few days, and he learned it the hard way in battle. Any emergency would cause any people to do that, of course.

General Ridgway got that training during his regime up to four weeks, but there were only 200 a day being called in, so it was not very many, and on a short four weeks, well, 200 a day, they did not come in on Sunday—well, 200

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a day for 25 days that would give us 5,000, only a small pool of 5,000 in that training pipe line.

Well, I stepped that up to 300, then 500, 700, I held it there for a long time, brought the training from 4 weeks to 8 weeks, then 12 weeks, and 14 weeks, then 16 weeks, the same as our replacement-training period, except they worked longer hours and more days, and no week ends.

Last fall I started to go from 900, 1,000 1,100 1,200, so that today there are 1,200, less the losses—I do not know just what that figure is—well, it is around 1,200—coming out 6 days a week or around 25 days a month after 16 weeks of training. Well, that gives us in the pipe line today about 108,000 instead of 5,000—you see how that terrific number has to swell. Of course, in doing that we are always exceeding our authorized ceiling. You get more and are training them longer, that swells the numbers that are not in combat or we will say the—

Q: What do you mean "the authorized ceiling" there, General?

Van Fleet: Well, you have a certain announced figure for logistical support purposes, for planning purposes, for the shipment of food, clothing and general supplies that we feel in Washington here, in the Pentagon, they are able to support, and that is a decision here of policy. The State Department gets into it, I guess, and the Congress and all agencies.

Q: When the war first started we were impressed here with the way the ROK troops gave way and did not support our men on the flanks, and the casualties ran up, but that has all been cleaned up and changed through the process you described?

Van Fleet: Yes, sir. That was very evident during the early days when the man not trained and not with proper weapons could not hold a line against a mass attack. . . . It was not his fault, but he was bitterly criticized even by our own American officers. . . . When you understood that situation, well, nobody could stand under those conditions; a wave will engulf them. But give them training and give them weapons and just reasonable leadership—gosh, how they can fight! . . . They never have disappointed me since they had proper training and weapons, never. They are always surprising you with an exceptional performance.

Q: And this program you have outlined is continuing on with the ROK troops?

Van Fleet: Yes, sir.

Q: And what about the training of the officers? Are they receiving adequate training? I mean the ROK officers—are we getting enough of them?

Van Fleet: We have a very complete training establishment in Korea for Koreans, all the necessary schools for officers, noncommissioned officers and specialists, and a splendid replacement-training system to turn out the trained soldier, who receives the 16 weeks of intensive basic training, even far better than our own boys in America do in those 16 weeks, because he goes through the training camp and he doesn't live there during that period and he trains 10 hours a day, 6 days a week, and on Sunday he washes his clothes and does other things around camp. . . .

We get a well-trained man, well-trained leader, well-trained specialist. I dare say that some of that training and schools are better than we have here in America.

Q: Can we get 10 more divisions out of the ROK personnel, and what would that cost us?

Van Fleet: The man power is there. The cost I do not have available. The equipment itself will cost as much as equipment for an American division, piece for piece. They don't get the same quantity as we give to an American division. The cost would be a fraction of what it would take, total cost.

Q: The two things that the Republic of Korea soldier needs, are supplies—we have to equip them—and then we do have to furnish leadership and train them until they can take over?

Van Fleet: Yes, sir.

Q: Even if we created 10 additional divisions, General, we could not hope to withdraw our American troops soon. We would have to keep a pretty good-sized force there for some time, don't you think?

Van Fleet: Yes, I am strong in that belief, that Korean divisions can't replace American divisions at this time.

Q: So we don't want to create false hopes among the American people that, even if we build up the South Korean forces, our boys are coming home tomorrow. We are in for a long, hard pull.

Van Fleet: We must not let our people believe that.

Q: General, what is the potential from the standpoint of divisions for the Korean man power?

Van Fleet: They could go up to 20 divisions very readily, and support that number, with heavy casualties.

Q: In addition to the 14 divisions of ROK forces, how many South Koreans are in the American forces? Integrated into the American forces?

Van Fleet: We have a ceiling strength there of 28,000. That provides about three men per squad, which is about as thick as you can put them in and still have an American complexion.

The Enemy

Q: The majority of the Communist forces in Korea at the present time are Chinese?

Van Fleet: Yes.

Q: They constitute by far the larger group?

Van Fleet: Oh, I would say four fifths.

Q: Four fifths. That large?

Van Fleet: Yes, sir.

Q: That [leaves] the North Koreans representing one fifth. Are the North Koreans having any difficulty replacing their casualties?

Van Fleet: The North Koreans reached the bottom of their man power a year ago. We do not find any people that have been brought into the Korean Army in the last —oh, 12, 18 months, except a few who have been hiding out and they finally caught up with them.

Q: Now, who is supplying the North Korean divisions with their matériel of war?

Van Fleet: Russia.

Q: Is it not true that the Chinese now—the Chinese divisions who oppose us on the front—are receiving matériel of war manufactured in China?

Van Fleet: Some matériel they produce themselves; yes, sir. That has been a hodgepodge of matériel in the past, made up of Japanese, Russian, Chinese and American. That has gradually worn out and been replaced in recent months by a big inflow of Russian-manufactured equipment.

Q: Is it not true that in China proper they are duplicating various types of weapons—Japanese, British, German and American weapons, that are now showing up on the front line?

Van Fleet: Yes; they are very good imitators. They copy our weapons very readily.

HEADQUARTERS SECOND INFANTRY DIVISION
OFFICE OF THE COMMANDING GENERAL

16 January 1953

Dear Joe:

I am sending you, under separate cover, copies of Training Memorandum No. 45 of this Division. It is the basis for our most realistic training here in Korea. I believe it would make a good article for the Combat Forces Journal.

As background I might explain that many units used different types of battle drill during World War II. The British had the best formalized instruction and we copied some of their methods. I trained my regiment in Italy to use fixed pre-planned squad and platoon maneuvers, and was looking for some such procedures when I arrived in Korea. As no training literature was available I wrote my own. The ideas expressed in it received confirmation when Eighth Army put on a demonstration of small unit maneuvers for all division commanders. I was not surprised that the method demonstrated were almost exactly the same as the methods we were teaching in the 2d Division.

Training Memorandum No. 45 represents the combined thinking of many experienced combat officers now with the 2d Infantry Division. The officer primarily responsible for its preparation is Major John A. Rankin, G3 of the Division, whose vivid imagination and keen mind, supplemented by an outstanding combat record, made this an important piece of training literature in my opinion.

If you publish an article based on this document I am confident that it will be received with enthusiasm by every noncommissioned and junior officer who reads it.

Sincerely,

J. C. FRY
Major General, U.S. Army
Commanding

Colonel Joseph I. Greene
Editor, Combat Forces Journal
1529 Eighteenth Street, N.W.
Washington 6, D. C.

Battle Drill ▶

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OUR Army's training methods are constantly being improved and our training literature is constantly refined with lessons from the battlefield. Conscientious efforts have been made by combat leaders of all ranks to have the training experience of men who are to go into battle be as practical and realistic as it possibly can be made.

But young officers and men are still being committed to combat improperly prepared to close with the enemy.

Every young soldier—enlisted or commissioned—approaches his first combat with questions, conscious that something was missing in his training. This uncertainty weakens the command structure of our combat units and detracts from the teamwork that must exist when the infantry closes with the enemy.

Much of the fault lies in the absence of proper psychological pre-conditioning, coupled with the lack of literature and procedures that will teach men what to expect and how to coordinate their efforts when they reach that last violent area of combat where commanders can no longer move about freely to issue orders or to give recognizable signals.

The lack of a clear word-picture of what happens in that last 100 yards of the fight where 99 per cent of all casualties are taken lies in the fact that most of the men who have experienced this phase of combat have been sergeants and privates who accept the saying that battle is the pay-off and that men have to experience combat to know how to conduct themselves wisely. Few of them, therefore, have ever made any effort to describe what takes place or to improve upon training procedures.

There is truth in the statement that battle is the pay-off but there is no reason to believe that existing literature and existing procedures cannot be refined to a degree where men will be better prepared for that last violent phase of combat.

A careful analysis of the reactions of combat troops shows that within squads there gradually develops a teamwork of understanding as to what different men in the squad will do under different conditions of combat and on different types of terrain. This can logically be expected and leads inevitably to equally logical conclusions that pre-planned procedures should be developed and agreed on before the squad is actually committed.

As a platoon advances to the attack, each committed squad has its own little battle. Since the number of maneuvers possible is very limited, it should not be particularly difficult to agree upon fixed maneuvers so that each man will know what his job is, once the direction of attack is shown to him. Such pre-planned maneuvers develop confidence within squads so that men move into the attack knowing that they are doing what their squad leader wants them to do and that their actions will fit into the pattern of what other members of the squad will be doing.

Battle Drill then is training that will instill confidence, individual initiative and aggressive behavior in soldiers and small unit commanders when conditions of close combat prevent unit leaders from giving clear oral orders or recognizable hand-and-arm signals.

It should be added that each soldier must not only know exactly what his squad should do under the conditions that exist but must have a full appreciation of the potential power of the weapons of the squad and how they can best be used. He must also know how the elements of a platoon cooperate in combat and must understand the use of ground and how to maneuver over it.

The ultimate goal in squad preparatory training is to develop each soldier's knowledge, instinct and coordination to the point where his unit can carry out the assault phase of an attack without receiving orders or signals. From the platoon point of view, squads are deployed by orders or signals to their respective zones of action, after which each squad is carried forward by the initiative of its members.

Basic Signals

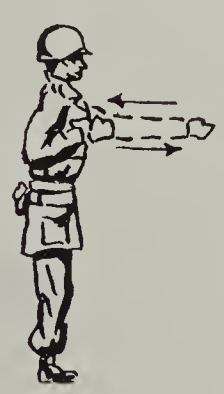
When a combat situation does not permit the leader to use oral orders, he uses hand-and-arm or whistle signals.

ATTENTION



Extend arm sideward and slightly above horizontal and move towards head repeatedly. *Whistle:* One short blast repeated if necessary.

MOVE FORWARD *(frontal attack)*



Thrust fist repeatedly to the front.

Whistle: Series of short blasts.

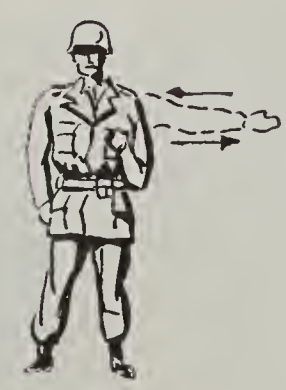
MANEUVER RIGHT



Thrust right fist repeatedly to the right.

Whistle: Two short blasts repeated if necessary.

MANEUVER LEFT



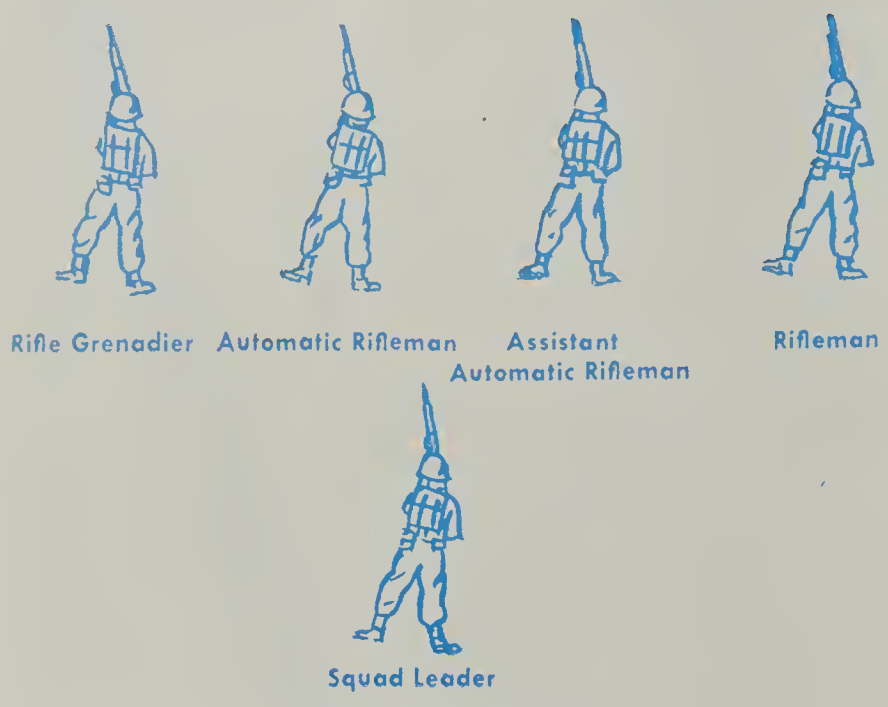
Thrust left fist repeatedly to the left.

Whistle: Three short blasts repeated if necessary.

The Squad

We will consider that the rifle squad always consists of a fire team and a maneuver team. These teams are interchangeable if the ground and conditions of the attack indicate the need. Squads must be trained so that individual members of each team know what to do from watching their leader or from his signals.

EACH RIFLE SQUAD HAS TWO BASIC BATTLE DRILL TEAMS

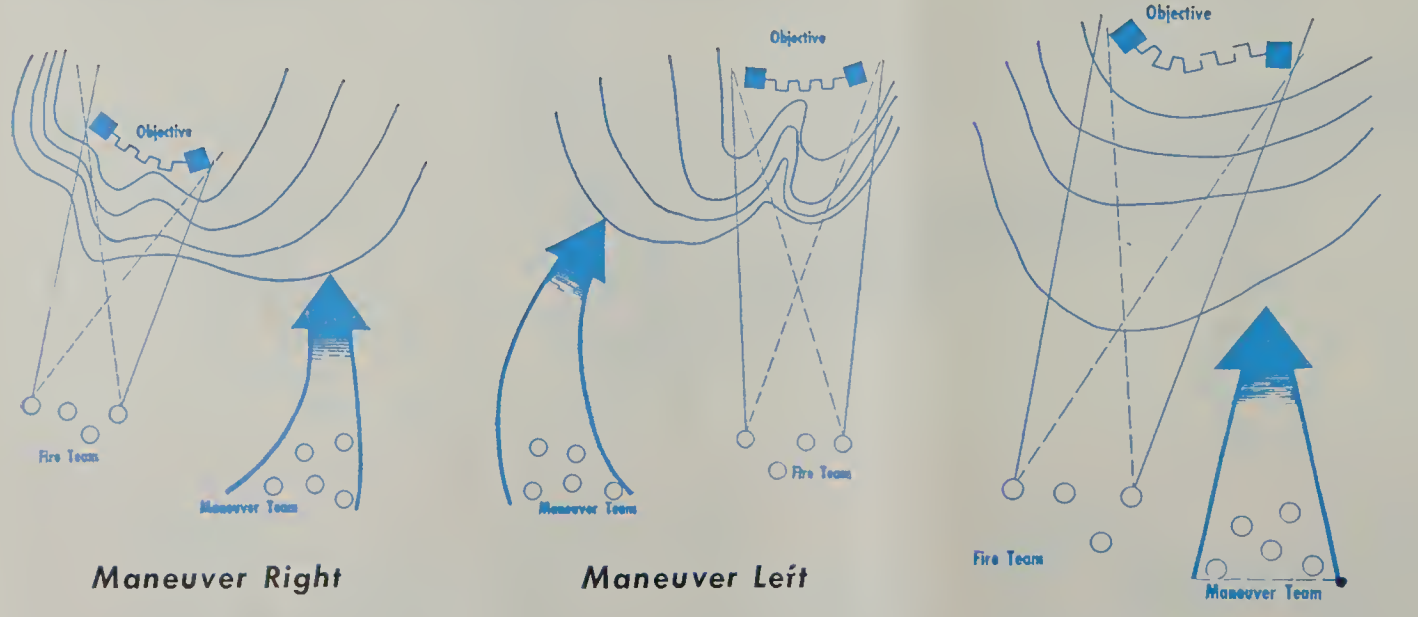


Squad Fixed Maneuvers

Combat conditions usually restrict the squad to four maneuvers. These are by either flank or straight forward and, less frequently and usually in mountains where enemy lines are close, the fire support element can remain in a single fixed position until the maneuver element reaches the enemy position.

In all four of these maneuvers the fire teams must be trained to execute two rules automatically: (1) to advance by fire and movement as long as the effectiveness of the team's fire can be improved by closer range and (2) to rejoin the maneuver element with all possible speed once its fire is masked.

THE BASIC MANEUVERS OF THE SQUAD



Maneuver Right

Maneuver Left

Frontal Attack

Frontal Attack (overhead support)

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The Platoon

The basic element of the platoon is, of course the squad. The squads execute the platoon leader's battle drill plan in accordance with verbal orders or signals. The chart opposite pictures the platoon's basic battle drill team.

Fixed Maneuvers

A platoon normally advances to the attack in platoon column, line or wedge. The leading, or center, squad is the base squad in all fixed maneuvers. The platoon leader is with his advance group near the front of the column where he can usually give oral initial orders to squad leaders, tell squad leaders how and where he wants them to attack. When squads know the objective and the position from which they attack, they execute their movements as described in *squad fixed maneuvers.*

When the platoon leader finds that he cannot issue oral orders he uses either hand or whistle signals and the squads execute them in this manner:

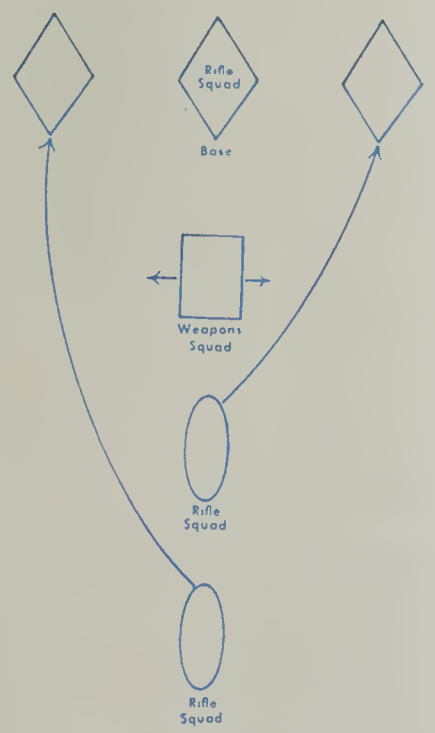
Forward or Attack Forward

First squad attacks straight to the front.

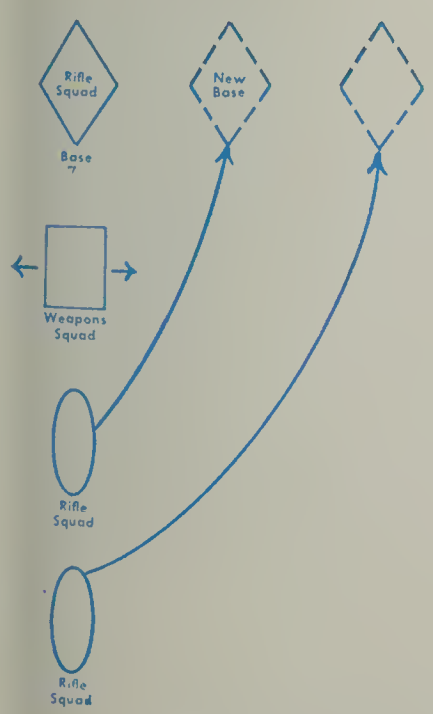
Second squad in column, moves to the right of the leading squad and attacks.

Third squad in column moves to the left of the leading squad and extends the assault line.

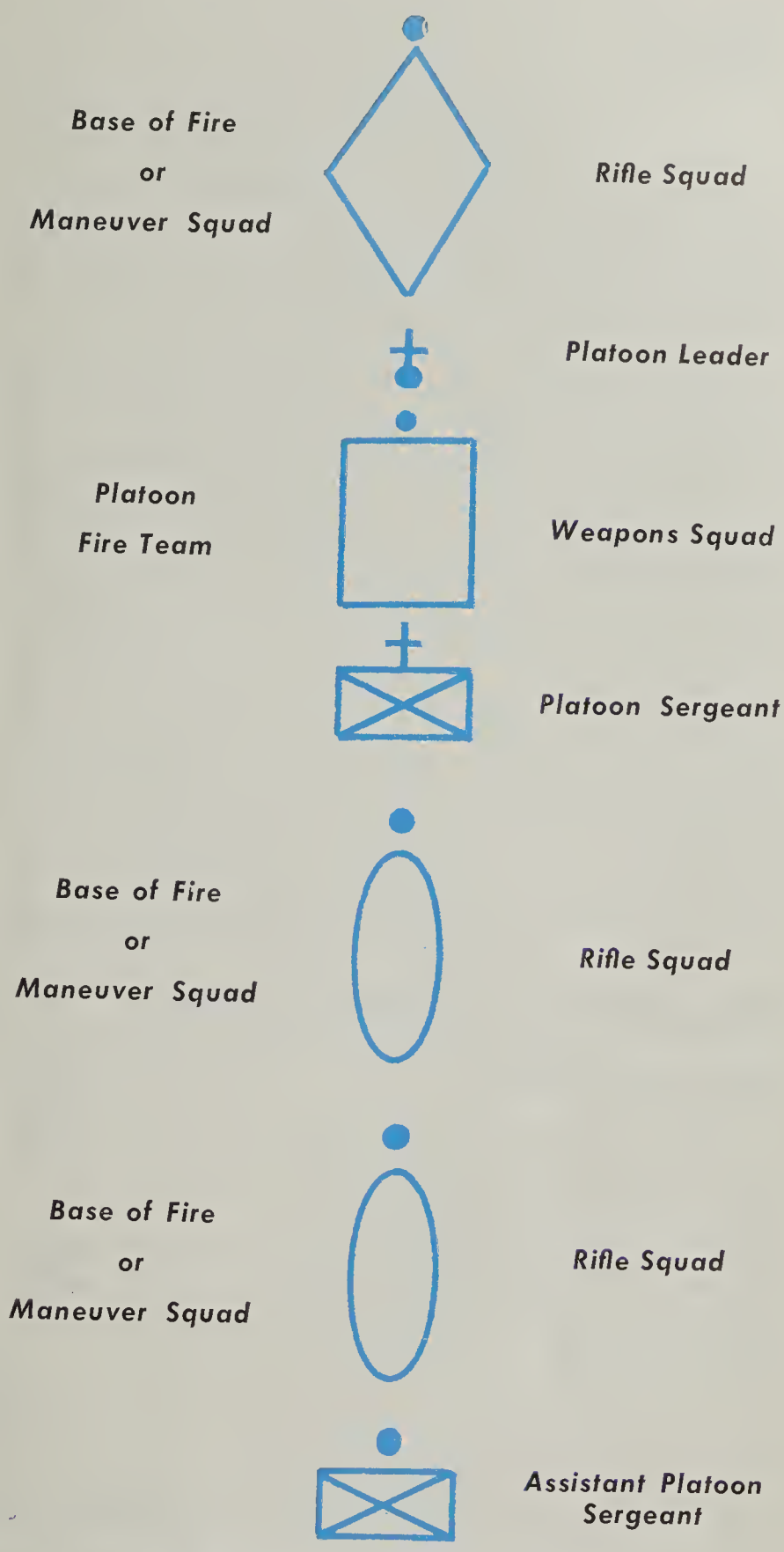
Weapons squad selects ground to the right, left or center of the platoon from which it can best support the advance of the platoon. It is a platoon fire team which maneuvers very much as the fire team for a squad. When the objective is taken it joins the rifle squads promptly and its automatic weapons are placed in position to thicken platoon fires and turn back any enemy counterattack.



Platoon—Forward or Attack Forward



Platoon—Maneuver Right



The Platoon Basic Battle Drill Team

Maneuver Right

Second squad in column moves to a position on the right of the leading squad and attacks.

Third squad in column maneuvers to the extreme right and advances abreast of the squads already in line.

Weapons squad selects ground to the right, left or center of the platoon where it can support the platoon advance. It is a platoon fire team and maneuvers very much as the fire team of a squad. When the objective is taken it joins the rifle squads and emplaces its automatic weapons.

Maneuver Left

Maneuver left is executed exactly as *maneuver right* except that the squads in rear of the leading squads move to the left of the leading squad.

Patrols

The smallest patrol should consist of five men including the leader. This element can be increased by groups of four, one of whom is the team leader. A patrol therefore normally consists of five, nine or thirteen men. If a larger patrol is desired a squad increment may be used. Two squads are normally the next sized unit and if a still larger group is needed, a full platoon should be used.

Orders to patrols must state the mission clearly so that the leaders will know exactly what is expected of them.

Security patrols, reconnaissance patrols and combat patrols all require different actions by members of the patrol but basic principles of combat are practiced. When a patrol encounters the enemy it must always find and fix him. To do this the patrol uses fixed maneuvers so that its members may use their individual initiative, knowing that their actions will fit into the general plan. Immediate action when the enemy is encountered is extremely important. The enemy must be put on the defensive so that his movements are restricted and the patrol can move with greater freedom. Weapons must be used instantly and aggressively.

Normally a patrol moves in column or diamond formation with distances and intervals varying with the ground and visibility. When the enemy is contacted the following actions should be taken as SOP:

The rifle grenadier (or patrol leader) fires a rifle flare in the direction of the enemy.

Previously designated members of the patrol immediately fire at least one clip of ammunition in an effort to make the enemy disclose his strength and position.

When the flare lights up the area, HE and white phosphorus rifle grenades should be fired and each member of the patrol fires one clip of ammunition across the enemy target.

The patrol leader decides upon the action he must take and gives necessary signals or orders.

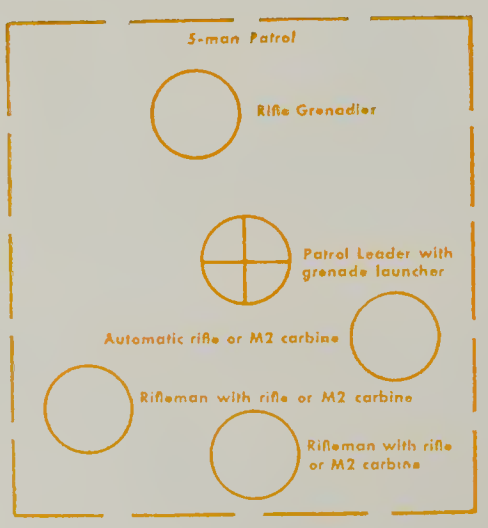
Increments of a patrol are always divided into two or three man teams and these teams work together and care for each other, including evacuation of wounded men. When signals call for movement, these teams execute the maneuver together, not individually.

Enemy action frequently determines the actions of the rear or security element of a patrol and the leader of this element should be a man of intelligence and initiative. Frequently he will have to extricate other elements of the patrol from danger and at other times his element will be called on to cover an exposed flank which the patrol leader had thought secure from enemy envelopment.

Fixed Patrol Maneuvers

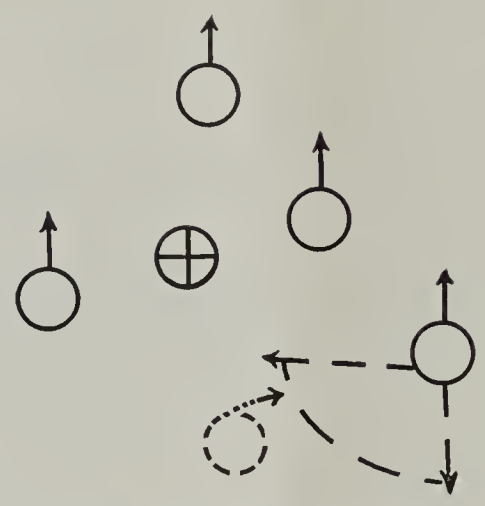
Five-man Patrol

Being small, these patrols usually move through enemy territory in an open squad column or diamond formation in order to have the best all around security. Battle Drill must be modified to accommodate the small number of men.





Five-man frontal attack



Five-man maneuver right

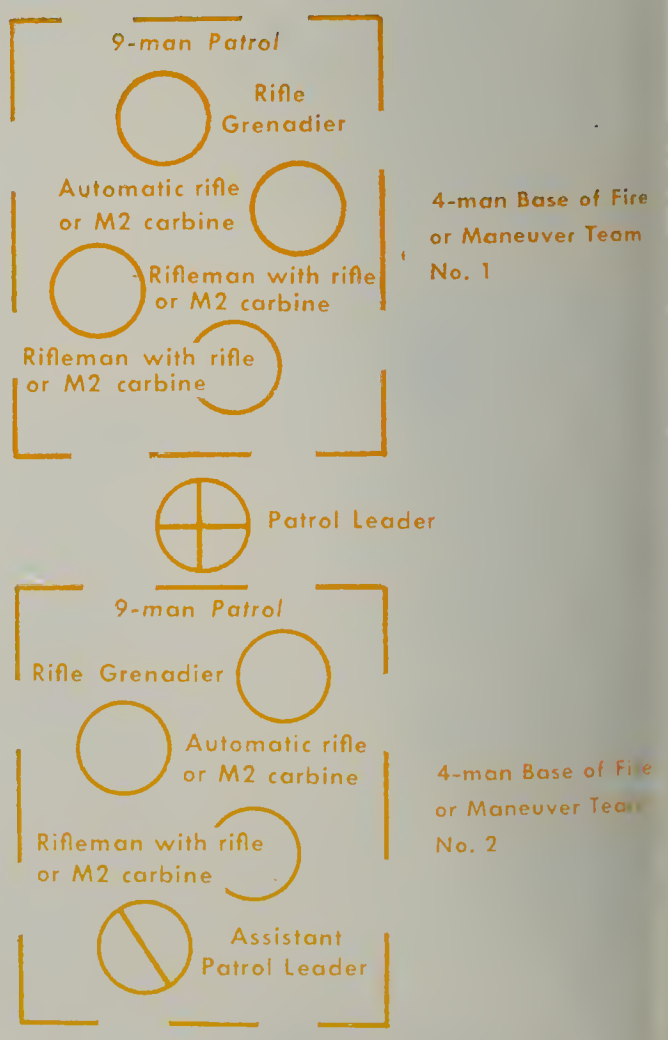
In forward or frontal attacks the patrol "hits the dirt" on signal by the leader and immediately begins to fire to the front. Members of the patrol maintain their relative position in the formation. The patrol leader fires his flare in the direction of the enemy. The rear man in the column moves to that flank where his "buddy" is, thus putting the patrol in a wedge formation (*see cut*).

To maneuver right the patrol fires to its right while maintaining its original formation each member being responsible for security to his exposed side (*see cut*).

To maneuver left the patrol reverses the procedure used in maneuver right.

Nine-man Patrol

This patrol executes the basic Battle Drill of the squad. The rear element is always the maneuver team. Both the fire and maneuver teams are responsible for their own flank security and each designates one man to be alert for rear security.

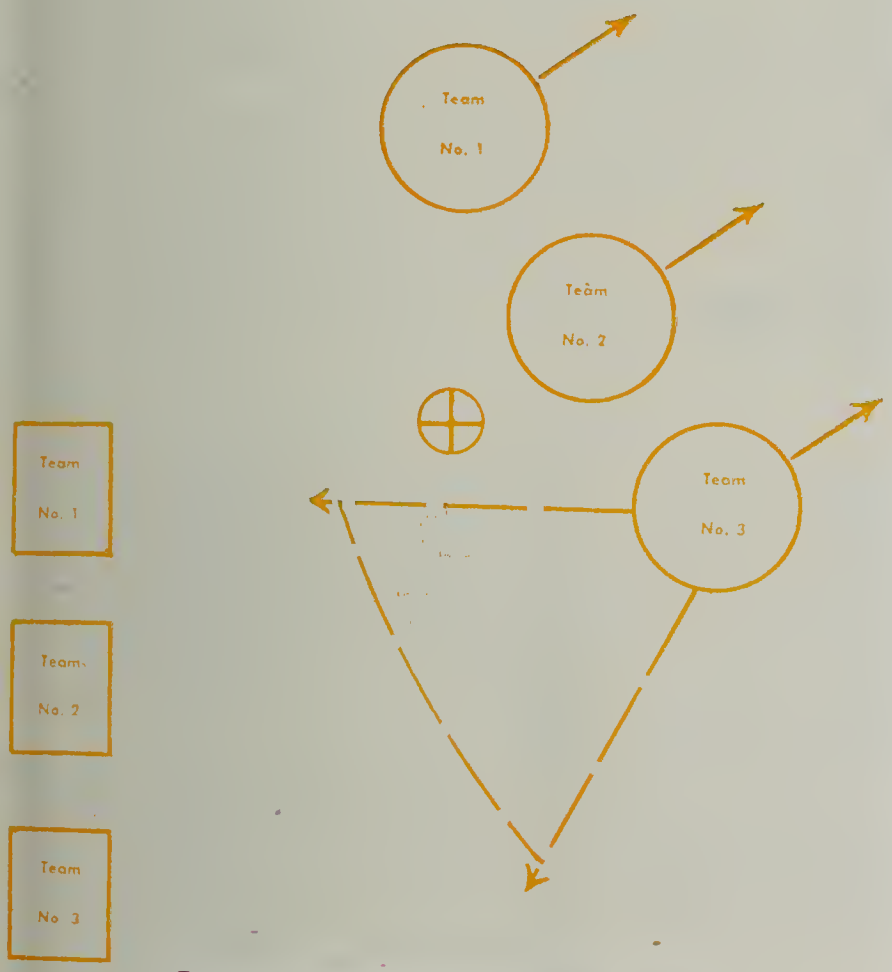


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Thirteen-man Patrol

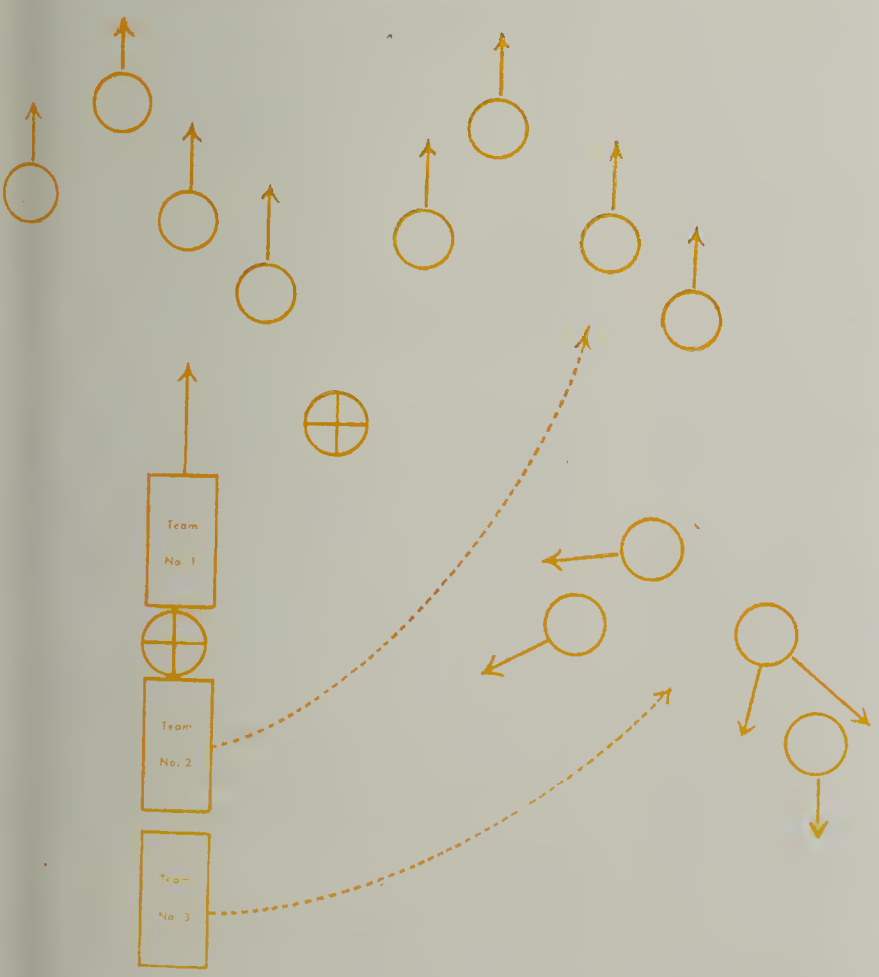
This patrol consists of three four-man teams which maneuver when given the signal by the patrol leader. Rear and flank security for patrols of this size and larger usually is the responsibility of the last four-man team in the patrol and is under the control of the assistant squad leader.

Forward or frontal attacks begin with the leading team opening fire on the enemy with flare, fire and grenades. The second team moves up on line to the right of the leading team and adds its fire to the attack. The third team moves into position in the rear of the first two teams and faces so as to protect the rear and flanks *(see cut)*. If executing a combat mission, the assaulting team moves forward as in squad fixed maneuvers with the rear security team adjusting its position to conform to the situation.



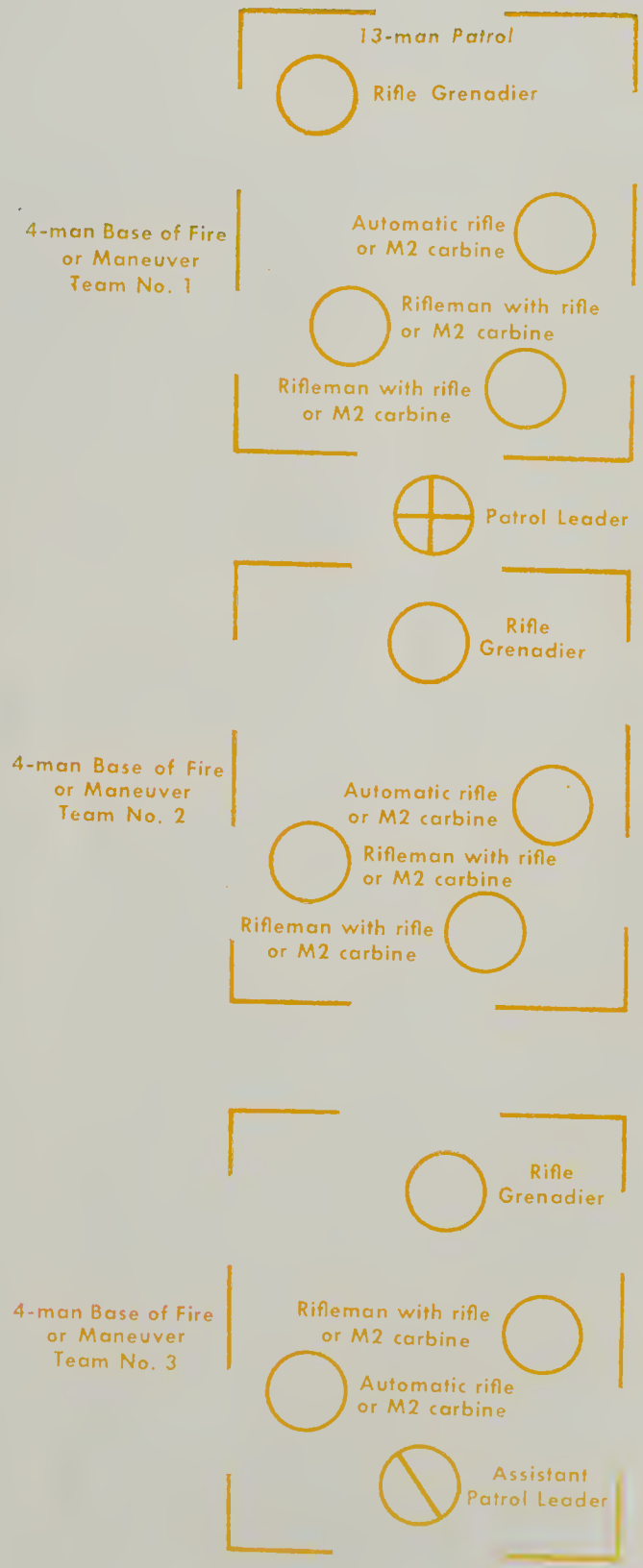
Forward attack by 13-man squad

To maneuver right the first and second teams commence fire on signal and maneuver to their right flank. Flares, grenades and rifle fire are used aggressively. The third team moves to the right rear, taking position to protect the new rear of the patrol. The first two teams assault the enemy as in squad fixed maneuvers and the third team adjusts its position in order to protect the rear of the patrol. The patrol leader normally joins Team No. 2 at this time. Team No. 3 thickens the patrol's fire but continues to watch the rear and left.



Maneuver right by 13-man squad

To maneuver left the patrol reverses the procedures used in maneuver right.



In next month's issue "Battle Drill" will be concluded with the description and illustration of training methods.

MACHINE GUNS We Need Them

And they ought to be designed to do the job of protecting assaulting infantry in the final surge into the enemy's position

Lieutenant M. E. A. Gobus

DURING the two years that I have been a machine gun instructor in the Netherlands Army I have had a switch from British equipment and drill to the American way. This has given me a chance to compare British and U. S. methods of support by machine gun fire. For that reason Major Robert H. Clagett's article on machine guns in the October issue of COMBAT FORCES JOURNAL stimulated my interest and provoked my thinking.

As Major Clagett rightly put it at the end of his article: "We must design guns to fit our needs, not plan our uses around the guns provided us."

But do we actually need any automatic-firing small-caliber weapons in today's infantry? Riflemen today must have adequate supporting fire but can't this be furnished by many other weapons: mortars, howitzers and guns.

However, there is the 50 to 200 yards that, in the interest of safety, must be kept between the infantry and the impact zone of supporting fires. Here is where we must have a weapon that can be fired from our own lines (or slightly behind them) that has enough power and volume to force the enemy down. The needed power and volume will be found in the caliber of the bullet. It cannot be less than the normal caliber of a rifle (shock-power), while the volume of fire must be sufficient to place a certain quantity of bullets in a certain place. So there we are—we need a more or less fast-firing weapon of the same caliber as our rifle.

This establishes our need for an automatic weapon. But what uses are we to put it to?

First it will be used to force the enemy to take cover when other kinds of fire must be stopped or lifted for the safety of our assaulting forces.

BALLISTICS show that every weapon, be it single-shot or automatic, has a cone of dispersion. We also know that the beaten zone of an automatic weapon is a pointed ellipse of relatively small width but of considerably great length. If we want to make the best use of this ellipse we must be able to place it where the enemy can be hurt by it. This calls for flanking fire. But we don't want our troops to run into our own fire so we should place the weapon on the far side of our flanks. This brings up the question of range.

We want to cover our men during the last 50 to 200 yards and at the same time we want to use this weapon for flanking fire. If we keep the range of the weapon inside the battalion's zone of action it need not fire more than 1000 yards. And this range should be enough to provide the necessary cover and the additional time for our actions.

Now where in our organization does this weapon fit?

For reasons of speed and supply as well as maneuverability, we cannot equip our rifle squad with a machine gun, although the squad does need a weapon that will give it protective fire. It has the automatic rifle for this purpose, to be sure, but the squad still needs additional covering fire of greater volume than it gets from its own automatic rifle.

The machine gun, therefore, should be in the next higher unit, the platoon. That's where it is now. It gives the platoon commander a weapon with which he may cover the actions of one or two squads.

The beaten zone of the machine gun has characteristics similar to collective rifle fire, although the fixed mounting gives greater accuracy and closer grouping. As in collective rifle fire, the length of the beaten zone will decrease as the range increases. Still, the area of the beaten zone is such that the destructive or neutralizing effect of the fire of one machine gun becomes greatly reduced.

THERE are two ways to compensate for this reduction: by tightening up the cone of dispersion while keeping the same rate of fire, and by simply adding one machine gun, thus doubling the amount of strikes on the ground.

The first method calls for a highly superior type of machine gun which, I daresay, does not yet exist.

I think the second method is better, provided we design a machine gun that will not restrict the movements of the platoon.

The weapon must be light. To avoid additional weight, it should therefore be air-cooled, and belt fed.

LIEUTENANT M. E. A. GOBUS, Royal Netherlands Army, is, as he says in his article, a machine-gun instructor in his Army, teaching our own Army's methods. The requirements he states are sound and provocative, even though he may be overoptimistic about the ability of designers to achieve them.

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The ammunition should be lighter than present ammunition.

Its rate of fire should be designed to give the maximum effect on the smallest possible beaten zone. That is, it should have a fast rate of fire and a comparatively tight cone of dispersion. The rate of fire should be adjustable. Could not a way be found to control the amount of gases used for the recoil?

We may be able in this way to pour the maximum number of bullets in a slightly increased beaten zone, while we also produce longer and slower neutralizing fires at a smaller portion of enemy ground.

As we do not need the use of these weapons at greater ranges than 1000 yards, the length of the barrel might be shortened to save weight. We might also economize on weight by omitting the micrometer adjustment on mountings.

For the necessary lateral corrections, we might simply copy the British: one tap to the left, at the back of the weapon, moves the weapon 15 minutes of a degree to the left.

The sights should be a combination of the sight used for the bazooka and the "sniper scope."

The gun should be capable of firing in all kinds of weather and terrain conditions. This does not mean that indirect firing is one of the main tasks. It simply means that we must be able to operate the gun when terrain and/or weather do not permit direct sighting and laying, for instance in fog or smoke screens. The elevating mechanism should be telescope-type with a simple click-indicator to slow the corrections.

What should be the maximum and minimum rates of fire?

AS Major Clagett stated, a man's normal reaction time is five-eighths of a second. This means that we have approximately three quarters of a second to hit a man. This means we must know how many bullets we need to fire in order to have the best chance to score a hit.

We should be able to determine this by considering the following factors:

How big is a normal human target?

What proportion of the beaten zone is occupied by the human target?

How many strikes would we need to score one hit on the human target in the center of the beaten zone?

The figure should tell us the number of rounds to be fired in three-quarters second and what the proper rate of fire should be. This rate can be slowed up if we want to neutralize the beaten zone.



This experimental British machine gun fires a 7mm round and is lighter than the Vickers which it may replace. Note that the gas regulator is similar to the one found on the Bren .303 light machine gun and the mount is from the Vickers .303 medium machine gun.

I realize that the problem is not as easy to solve as to state, so, I gladly leave that to competent technicians. But if the technicians can design and build a weapon with these characteristics and if two of these guns are given to each infantry platoon, I believe that the fighting power of the infantry company will be greatly increased. Also the water-cooled machine guns in the heavy weapons company could be discarded because every company commander would have adequate firepower.

The logistical side of the problem appears to be comparatively easy.

These guns are light so no motorized transportation is needed. The weapon should have a crew of two men, one carrying the gun, the other the mount, and each carrying two ammunition-belt boxes totaling 1000 rounds.

The weight of belts and boxes might be reduced by the use of specially prepared paper or cardboard for boxes and reinforced strips of silk or nylon for belts. The total load of the crew should not exceed 20 to 25 pounds per man.

Ammunition supply should not worry the S4 as there would be no heavy machine gun platoon to supply.

I WOULD like to close with a few words about the final protective line. I think Major Clagett quite right in suggesting that FPL be abandoned. But not always. If we are able to establish FPL before the ground we choose to hold, let's do it.

But we should never select our positions depending on the FPL, for no FPL can guarantee the safety of our ground if the attacking enemy is eager and crafty enough to break through.

I hope these thoughts on the type and the use of machine guns will stir the tactical, technical and logistical experts into designing a weapon that will meet infantry's urgent needs.



WHETHER remembered or just imagined from hearing about it, Army life back in the thirties must now seem idyllic to many an Army wife: Quarters "on the post" for most officers on duty with troops (some of the quarters seemed pretty inadequate then, and they were); a full-time, "live-in" servant in most families (a good cook for thirty dollars a month); dressing for dinner a normal procedure (civilian evening clothes or dress blues or whites required for officers after Retreat on most posts, and steaks as you liked them instead of very rare as nowadays); orders collected and deliveries made by both the commissary and the post exchange (bills once a month, pay before the tenth); social life enlivened by polo, horse shows, and riding to hounds (and a hearty welcome from civilians at all horse shows).

But, dear wives, is your husband a lieutenant colonel at thirty-five? In those happy prewar years, he was lucky if he was not still a captain on his fortieth birthday.

There is one unchanging factor, though, and you wives of today should realize it: The Army wife has always been, and always will be, a vital factor in the success her husband attains.

IN offering some comments on the guidance of wives, the present writer (retired, happily married, and old enough not to know any better) realizes he is getting into a subject of considerable scope and more difference of opinion. To keep this piece within bounds, let us look primarily at the wife of the career officer. The wife of the nonregular officer or of an enlisted man, whether he be a career master sergeant or a drafted private, has more difficult over-all problems than the wife of a regular officer, but, considered solely in terms of effect on her husband's career, the latter's adaptability, helpfulness and personal qualities have more influence. What are some of the ways that these characteristics, whether guided by inherent good judgment, by the husband. or by various outside influences, and how do they affect the husband's career? And how does the Army wife's position differ from that of the wife of a civilian executive?

Sometime ago *Life* published a provocative article, "The Wife Problem," which emphasized the value to young corporation executives of a wife who is "stabilized," "integrated," and "who

MAJOR GENERAL H. W. BLAKELEY, retired, who lives in Washington, D. C., asked the editors to announce that he is leaving town the day this issue is put in the mails. No forwarding address. A former field artilleryman, General Blakeley commanded the 4th Infantry Division during the latter part of the European campaigns of 1944-45.

She is important to her husband's career

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loves her husband's job." The author, William H. Whyte, Jr., drags the Army in, not too pleasantly, early in his piece. Speaking of "the corporation wife," he says: "Like an Army wife, an analogy she detests, she must be a highly adaptable mixer. In fact, she needs to be even more adaptable than the Army wife, for the social conditions she meets are more varied. One year she may be a member of a company community, another year a branch manager's wife, expected to integrate with the local community—or, in some cases, to become a civic leader, and frequently, as the wife of the company representative, to provide a way station on the route of touring company brass."

RIGHT here the experienced Army wife, brushing aside the "analogy-she-detests" crack, will testify that no one outside the services needs to be more adaptable than the Army wife or meets more varied social situations. What corporation wife could equal the experience of being a lieutenant's wife living in a small, overcrowded town, fifteen miles from the post, and then in rapid succession following a husband as he is a student living on a post; an associate professor in a college located in a large city; the only representative of the Army in a midwestern town, which is a National Guard regimental headquarters; a staff officer in Washington; duty, at various times, with troops on foreign service—Japan, Germany, Trieste or any one of many other spots; more school, military or civilian; then perhaps military attaché in a cosmopolitan foreign city, followed by troop duty in Texas? What corporation executive would have to adapt himself to the ways of so many different superiors in a like period? The husband may also have been a post exchange and commissary officer, sat as a summary court, been a provost marshal, and had a few chaplains, lawyers and doctors under his command—all jobs with social implications, and perhaps unsociable reactions, for the wife. And finally, no corporation asks a sacrifice equal to that of a service wife left alone in the States while her husband is in combat overseas.

A retired officer commented recently that he had seen a well-known cavalryman only twice: once, many years ago, when the latter was a military attaché in Europe and was attending, at a ceremony, the king of the country to which he was assigned. The cavalryman was turned out in the old full-dress blues with high-collared, double-breasted coat, sky-blue breeches with yellow stripe, black boots, spurs, white gloves and saber. The next time the officer saw him he was sitting, clad in a sweaty OD shirt and breeches, on a crate in the back room of a Fort Riley post exchange supervising the sorting of rotten apples out of a shipment which had just been delivered in bad condition. Army wives have known, and will know, even greater variety of position and environment.

Mr. Whyte thinks that the good wife is good by *not* doing things—"by *not* complaining when her husband works late; by *not* fussing when a transfer is



coming up; by *not* engaging in any controversial activity." Here the Army wife has the advantage that she ought not to be as tempted to "fuss" as her civilian counterpart. The latter may find all three of these examples reasonable subjects for her intervention. The Army wife soon learns that her husband has little choice in these matters. If he is Officer of the Day, a detail which peculiarly often requires a night of work, he *is* and that is that. On the other side of the picture, the Army wife who cannot achieve these negative values is doing her husband more harm than is the corporation executive's wife, and she had better realize it early in her career as an Army wife.

ANOTHER piece of negative advice might well be added: Don't be *too* anything. This applies to all types of activity—sports, painting, gardening, dog raising, bridge playing, drinking, even being a "do-gooder." Moderation is appreciated in both officers and wives.

Don't be too possessive. It's natural and commendable to speak of "our regiment" if you are a junior officer's wife, but if you are the regimental commander's wife it sounds better to let the regiment be your husband's. It is well established that "rank hath its privileges" and some of the RHIP inevitably goes to a wife as her husband climbs up the ladder. The rank, however, is strictly the husband's. The general's wife who refers to "our aides" and "my girls" probably does it from a spouse-of-the-head-of-the-family viewpoint, but she is sometimes misunderstood.

The family feeling should be a source of comfort and pride to service wives. Mrs. Lemuel Shepherd, wife of the Commandant of the U. S. Marine Corps, once commented that one of the great satisfactions of service life was "that certain family feeling" within the Marine Corps. In the Army such association, particularly in our infantry and cavalry regiments, was also a source of *esprit* up to World War I. In the greatly expanded, widely scattered (and somewhat transfer-happy) Army of today, the young soldier's need of associating himself with something less huge and vague than the whole United States Army has not been met, and the Army bride must also have a lost feeling not experienced, to such a degree at least, by her predecessors of quieter days.

With the passing of time—and assignments and stations—the wife's feeling of "belonging" nevertheless increases, and from it should come a loyalty to the service and a pride in her husband's contributions to the Army which she should express—particularly to her husband. To go to the other extreme of wifely attitudes, the officer whose wife believes that he should get out of the Army is under a psychologically depressing influence which is bound to affect his work. The wife with this belief should go on to a prompt showdown in the matter, or keep her opinion to herself.

THE wife also needs to have executive qualities, because even in peacetime, the husband will often be away on maneuvers or inspection trips, and she must run the household unaided. Then there is the point, not to be overlooked by the wife who is ambitious for her husband, that plain hard work is a factor in success in the military profession as it is in civilian life, and the husband who is not burdened by daily family problems is better able to devote his energies to his job.

There is, of course, the occasional situation in which the wife *should* urge

separation from the service. The financial problem will normally be the major one in such a case, but if the husband is not primarily interested in his job, the sooner the change is made the better. An officer who is irritable, depressed, and always anxious to get away from his work in order to get busy on some hobby, sport or other change of effort is not headed toward success.

Whether you live on a post or in a civilian community, it might be well to remember that your husband may well be judged by your neighbors largely on how your children behave. Would you like to have your husband done out of the job of chief of staff of an important command because the general couldn't stomach the idea of having your children living next door to him? It might happen. Or a commanding officer might just think that an officer with such brats for children must be lacking in some essential quality of leadership and discipline, even though the behavior of the youngsters might be *your* fault.

On the financial side, do you plan with your husband? Do you save for something that you want, and then buy it, or do you run up bills and installment obligations beyond his income? In most cases, he, and his career, are what suffer most if you get him into debt.

Have you faced up to the fact that you must know enough about your joint affairs so that in case of your husband's sudden death or serious injury you would have some idea what to do and what you have to do it with? It is an unpleasant and complex subject, but it's something you can work out much better *with* your husband now than you can stand having all the problems dumped on you alone when you are suffering from shock.

ON the social side, the wife who doesn't realize the advantages of a well-run home, and of what is indicated by that overworked phrase "gracious living," is miscast as an officer's wife. And "gracious living" doesn't mean silver, fine linen, servants and a spacious house —even if those things *do* help. I've seen a general's wife manage some very gracious living in a tourist camp in Needles, California, in midsummer.

The wife new to the Army will soon find that what is good taste and good manners in her home community is applicable to Army social relationships. Calling in the Army, for example, has changed, by force of changed conditions, as it has in civil life, but it is easy to ask what is the custom in a particular command. The purpose of the exchange of calls has always been to permit the newcomer to become acquainted.

The requirements on small regimental posts were designed to meet this requirement, but sometimes resulted in odd situations. On one post, a newly married second lieutenant was assigned a small set of quarters when he reported, and he and his bride called promptly on the "chain of command" up through the regimental commander. The colonel and his wife returned the call about a week later, and the colonel casually remarked that he hoped that the bride had met most of the post families. She innocently replied that only two couples had called so far. At officers' call the next day, the colonel made some emphatic remarks about the importance of calling promptly on new arrivals. That evening, the lieutenant was Officer of the Day and absent from his quarters while the bewildered bride did the best she could receiving sixty-three callers in a little less than two hours. *But* she had a good story to tell in later years.

It is probably true that in almost all social matters, the Army tends to be conservative, and to hold to customs and traditions longer than many civilian communities. A minor example is the tendency to a much greater use of first names by young women addressing older women than was regarded as permissible a generation ago. The Army bride would be well advised, in most cases, not to assume that she is expected to call the wives of senior officers by their first names just because they so address her—and even if asked to do so, avoidance of sounding too familiar on formal occasions is wise.

In general, the question of the relations of the wife of a junior officer with the wives of his seniors is not a difficult tight rope to be walked with extreme caution. Rather it is a broad comfortable path of courteous civility to older women avoiding two fatal extremes: On the one hand, to be coldly distant with a chip on the shoulder; on the other to "bootlick."

For the Army wife who has had no knowledge of service life before her marriage, there are many helpful books. For general information about the Army, there are books like *The Officer's Guide,* and *The Army Officer's Guide;* more specifically helpful are volumes like Nancy Shea's *The Army Wife.*

The officer-enlisted man relationship changed somewhat during World War II, but the wife would do well to remember that the basis of the social separation which some civilians charge to snobbery is based on the fact that officers must sit in judgment as to rewards and punishments of the men of their commands, and the soldier who sees the family of a fellow soldier associating closely in off-duty hours with an officer's family, is going to doubt that the officer will be completely impartial in his decisions as they affect that soldier.

I once had the son of the Inspector General of the Army in my battery. On two occasions when he was sent to my quarters with papers for me to sign, he refused even to sit down when my wife, who knew him well, asked him to. Later, he took a competitive examination for a commission and was one of the winners. The day he was commissioned, he came to our quarters at 1000 hours and stayed to lunch.

"Army brats" who go into the service, usually have a particularly high sense of responsibility, and of dedication to duty, honor, and country. The mother has invariably contributed to these qualities. When Lieutenant James A. Van Fleet, Jr., son of the Eighth Army commander, was reported missing in action in Korea, General Van Fleet gave to the press the contents of a letter which the son had recently written to his mother. A few sentences from it indicate a great deal about Army family relationships:

Dear Mother: This is a letter to an Army wife. I don't want tears spilled on it! . . . Do not pray for me, but for my crew, who are not professional men, but civilians whom the United States called upon to defend their homes in this moment of need. They have wives who wait for their return, families not yet started. I will do my best . . .

IT would be better, I'm sure, to let the final word be said by an Army wife who is descended, on both sides, from families that have been in the Regular Army for five generations, and is the wife of a colonel of artillery. Susie-Lane Hoyle Armstrong summed up today's challenge to the Army wife in these words in the *Army Information Digest:*

"I do not weep for the 'old Army,' much as I loved it. Each generation is confronted in turn by a newer generation which refers nostalgically to the 'good old days' their seniors thought so revolutionary! Changes have come as our horizons have broadened, and the new way is almost always an improvement. But the fine traditions that form the intangible core of a soldier's career will never vanish. New Army wives, meeting the challenge of increased responsibilities carried by the Army today, have been given an opportunity to contribute to the building of that tradition."

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LOW REPORTS —

A suggestion for getting around that stinker who unfairly hits you with a low OEI

WE'VE had some chance recently to get closely acquainted with today's efficiency reports and how they work. There is a certain amount of improvement over the reports used before and during the war, and right after the war. But some of the old, old faults are still there.

It does seem that by this time we could find some way to prevent most of these faults.

Take the ancient business of the stinker who gives you a report that is a terrific stinker itself. You've been doing O.K. for several years, hitting at least high excellent or low superior. Then, wham! Here you are under a guy who starts chewing when the two of you first get officially acquainted. And you don't take it any too easily—you've got *a little* pride, and you think you're as good as he is, or maybe better.

But a year goes by, and maybe another. And eventually you get to Washington (or make somebody there your agent to take a look for you) and see what this brother officer has done to you.

Just a drop from, say, an OEI of 115 or better down to 75, or even 60 or 65.

Just enough to ruin you for quite a while —or perhaps for good.

It doesn't happen to very many. But it does happen.

It can quite conceivably happen to any very able officer who just doesn't click with some type of superior.

A SITUATION just as tough—and one just as human—is that of the rating officer who takes the words on the efficiency report form absolutely literally. Often this man is a pleasant, quite likable person. But he is just plain dumb about the practical workings of efficiency reports.

Take, for example, that general in the days before the war—one of the finest superior officers you would ever want to serve under. He had the same aide for eight years. The general and his wife were childless and the aide and his wife were actually like son and daughter to them. But for eight long, long years the general gave his aide and friend a "middling excellent" efficiency report, just about ruining his chances of ever becoming a general officer. The old man was just too literal-minded about the wording on the efficiency report form. He felt that it would have been improper for him to exaggerate the good qualities of his aide by stretching things.

Or take one other case of the present day—a lieutenant colonel at a station where he happens to occupy an administrative position that requires him to make out a sizable number of efficiency reports. This man is another conservative "low excellent" marker. To him "very satisfactory" is a good, complimentary rating.

One young and able reserve officer served under this man for two and a half years. His OEI for this period was about 89, well below the average. The young officer had further hard luck to be selected for two years of special schools right after this—so his OEI is still 89 since schools don't make out detailed reports. But this man's most recent report, covering six months, gives him an OEI of 141. Being a brilliant and able specialist of fine character and bearing, actually with excellent relationships with those under whom and with whom he works, this officer is probably going to continue to receive highly superior reports of an OEI of 130 or better.

BUT the damage is already done. This officer has been passed over for promotion. Moreover, in appealing to our Association on what has happened to him, this officer points out that every officer, whether regular or reserve, who has served any length of time under this same man and was directly rated by him, has been passed over.

What's the remedy?

Well, in the first place every officer should see every efficiency report submitted on him, and should have to sign that he has seen it. And he should be allowed to make in writing any comment he wishes about the report.

Also, every superior who gives an officer a mediocre or worse rating, or who drops him more than 15 points, should be required to state his actions toward improving the man so rated. It is most certainly a sign of poor leadership for a year to pass without such corrective action. Ordinarily a superior officer should be able in thirty days to assess the faults of an officer under him—and tell him about them.

Reports that show failure to take repeated corrective action as needed should be canceled, and put in the file of the reporting officer as an adverse comment on his own efficiency.

THE finest way of handling junior officers we have ever heard of was the method of a major we once knew (a man who was later killed most cruelly by the Japanese who captured him). This man, as battalion commander, would have a talk with every officer under him, a month or so after he first knew the officer.

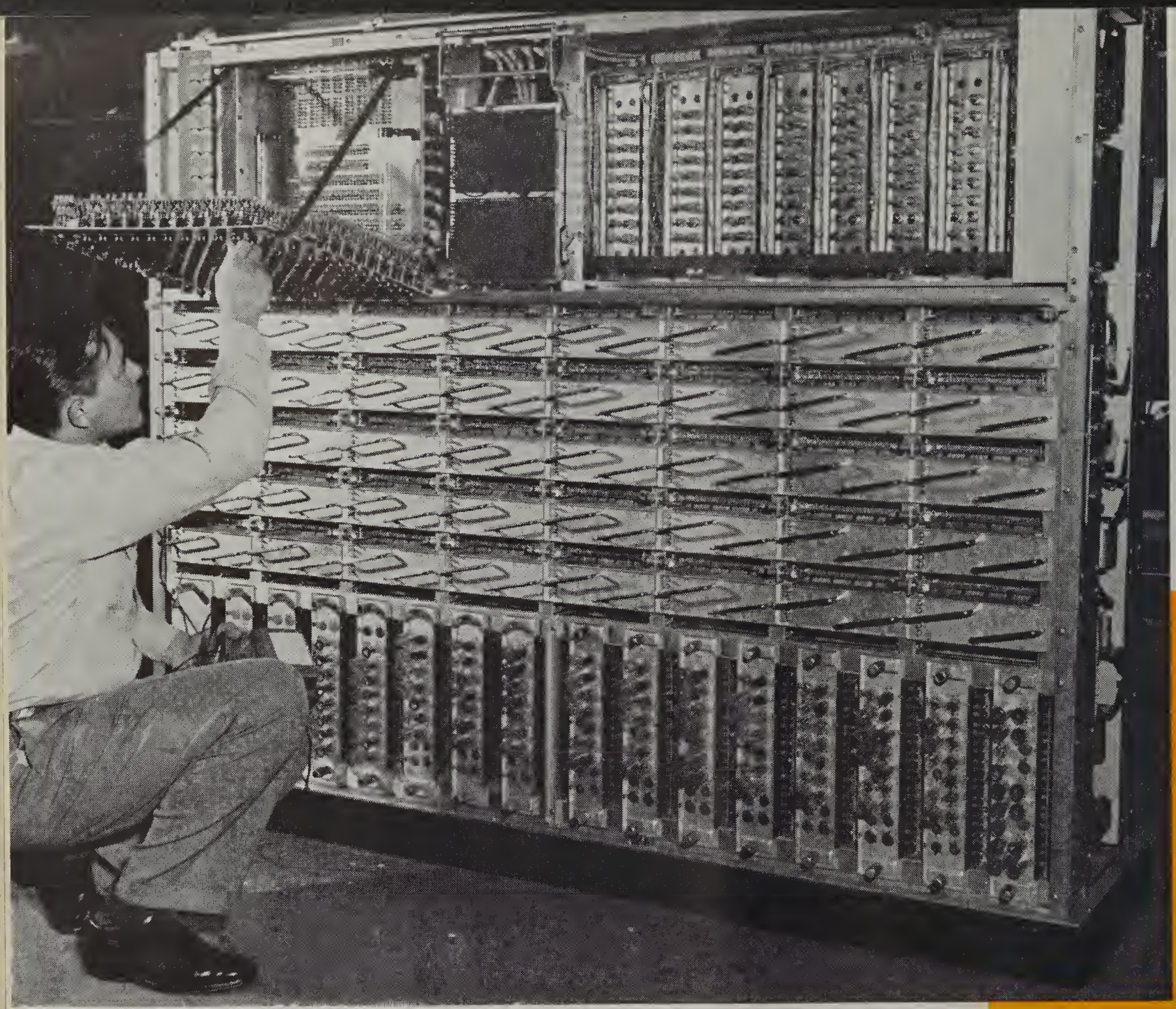
To an officer not doing so well, he would say, "Son, I want you to buck up in (naming the difficulty). If you don't I won't be able to give you the superior or excellent efficiency report I want to when the year is up." He would then go on in a good-natured but firm way to suggest ways of doing better. And he would end by asking the junior to come around and talk things over when he felt he would like to.

Or if the officer was doing well instead of poorly, he would tell him: "I'm much obliged to you for the way you're putting out for the battalion. You just keep it up and I'll be giving you superior on your report when the time comes."

Leadership demands this kind of open discussion by rating officers. The efficiency of most subordinates can be improved, if you work at it properly.

There are other things wrong with efficiency reports and we'll go into them at another time. We should keep at this business until we arrive at some real improvements. "Good enough" is not anywhere near good enough.

Next time, probably, we'll discuss whether it is right that the Army should never forgive—whether one pretty bad black mark when you're young and full of energy and ambition should count against you twenty or thirty years later, when your report cards show you've been a real good boy during the whole long time of maturity after you once learned a few early lessons in discipline.



This is the computer chassis of Remington Rand's small-size business electronic calculator.

All photographs by Barrett Gallagher for *Fortune*

Will the amazing co
tronic "brains" eve
officer's staff ou

MAJOR LESLIE G. (

THE security guard was just changing outside the big door deep in the Pentagon bomb shelter. The regular attendants, military and civilian, were reporting for the day shift. We were in another global war.

Twenty-four hours a day the latest intelligence and logistic reports fed into this room by teletype, television, radio, and other high-speed devices. The whole Rhine River campaign was being directed in this same room. Yet there was no confusion, no duplication, no delay. For all this information was channeled into a single "brain." And decisions went out to every unit concerned in seconds of time after the "brain" had reached the best solution.

Unlike its human counterpart, this "robot general" needed no rest. He (or it) was free of prejudice, made purely logical decisions. This computer, this brain, was the culmination of twenty years of development from the simple-minded computing machines of the 1950s.

There were twelve more large "brains" much like BRAIN ABLE, the one conducting the Rhine campaign. All of them had large air-conditioned rooms. The Air Force was using BRAIN BAKER to determine the best design for a new long-range missile. BRAIN CHARLIE was making a study for the Treasury Department of how best to finance the newest military weapons. Other governmental departments were using the other great computers to solve the many domestic and international problems that faced the U. S. in 1970.

It is hard to conceive what the actual development will be in the next twenty years. I've just suggested several possibilities. We can equally expect completely automatic factories, automatic billing machines, automatic weather forecasting, and automatic flood control, among other far-reaching possibilities. Whereas the first "industrial revolution" of a century ago freed mankind from his menial physical tasks, the new one is freeing him from his menial *mental* tasks.

IN 1930 Dr. Vannevar Bush and his associates built the first differential analyzer, entirely mechanical, having no electric parts except motors. By 1940 work was begun on electronic computers which have generally replaced the early mechanical models. Finally the ballistic

MAJOR LESLIE G. CALLAHAN, JR., Artillery, is on duty in the Office of the Chief of Army Field Forces, having recently been transferred from the AA&GM Branch of The Artillery School, Fort Bliss, where he was an instructor in the Guided Missiles Department. Major Callahan graduated from the Military Academy in 1944 and received his Master's Degree in electrical engineering from the University of Pennsylvania in 1951.

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problems of modern fire control and the financial resources of our military establishment brought the artificial brain from fancy to fact. The ENIAC (Electronic Numerical Integrator and Computer) now at Aberdeen Proving Ground recently ran off a series of ballistic computations of 52 hours of continuous running that it would have taken a human operator 25 years of 48-hour weeks to do. In the fire direction, the human being is simply too slow to compute corrections.

Air Force project SCOOP has as its objective the design of a big machine to figure the economic or logistic support for any military campaign. It will take in raw data on men and equipment and spew out in a few hours a breakdown for the making of decisions, planning and scheduling.

The ultimate aim of SCOOP is not unlike BRAIN ABLE, outlined in the open-in paragraphs of this article. In military personnel and administration, commercial IBM computing machines are being used in increasing numbers. The services are beginning to use punched cards and computing machines to set up a more efficient supply system. The computer may mean the maximum utilization of our manpower, by freeing many administrative and staff people for other duties.

The computer is also rapidly changing our notions of design engineering. Instead of a long period of model construction and empirical testing, the complete physical system, whether it is that of a new factory or an engine, or a guided missile, can be simulated in a computer. The computer will then determine the exact specifications of components for the final system. An airplane can be built without constructing a physical model or making extensive wind-tunnel tests. A factory may be laid out and efficient organization begun without costly production changes.

Today artificial brains can:

Learn what you tell them.

Apply instructions when they are needed.

Read and remember numbers.

Perform mathematical operations.

Look up numbers in tables.

Look at a result, and make a choice.

Do long chains of the above operations one after another.

Write out an answer.

Make sure the answer is right.

Know when one problem is finished and turn to another.

Determine most of their own instructions.

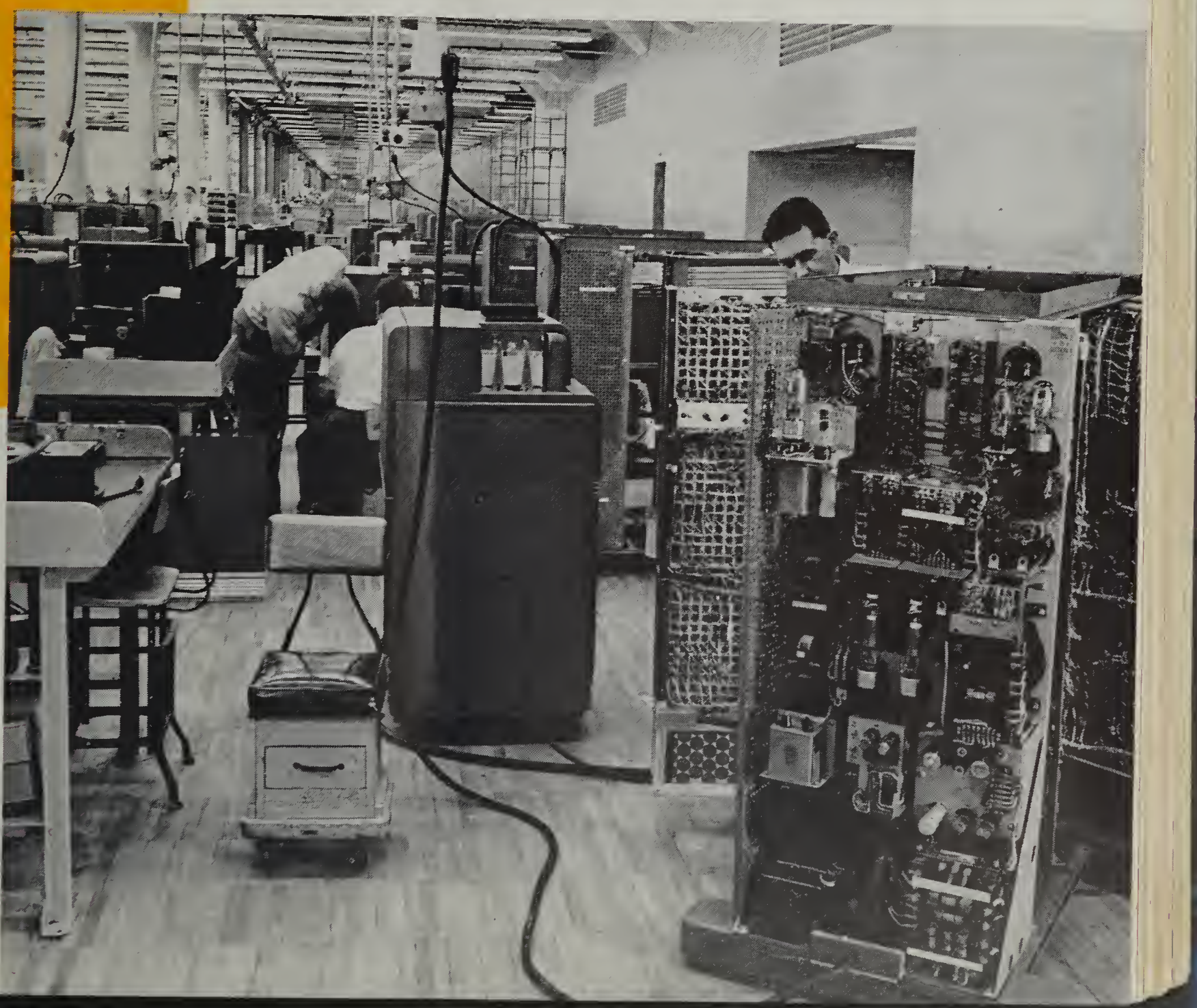
Work unattended.

These machines are very reliable. Even with thousands of parts, the existing giant brains have had few breakdowns. Some machines have become afflicted with near-human neuroses. When undisciplined memories take hold of a

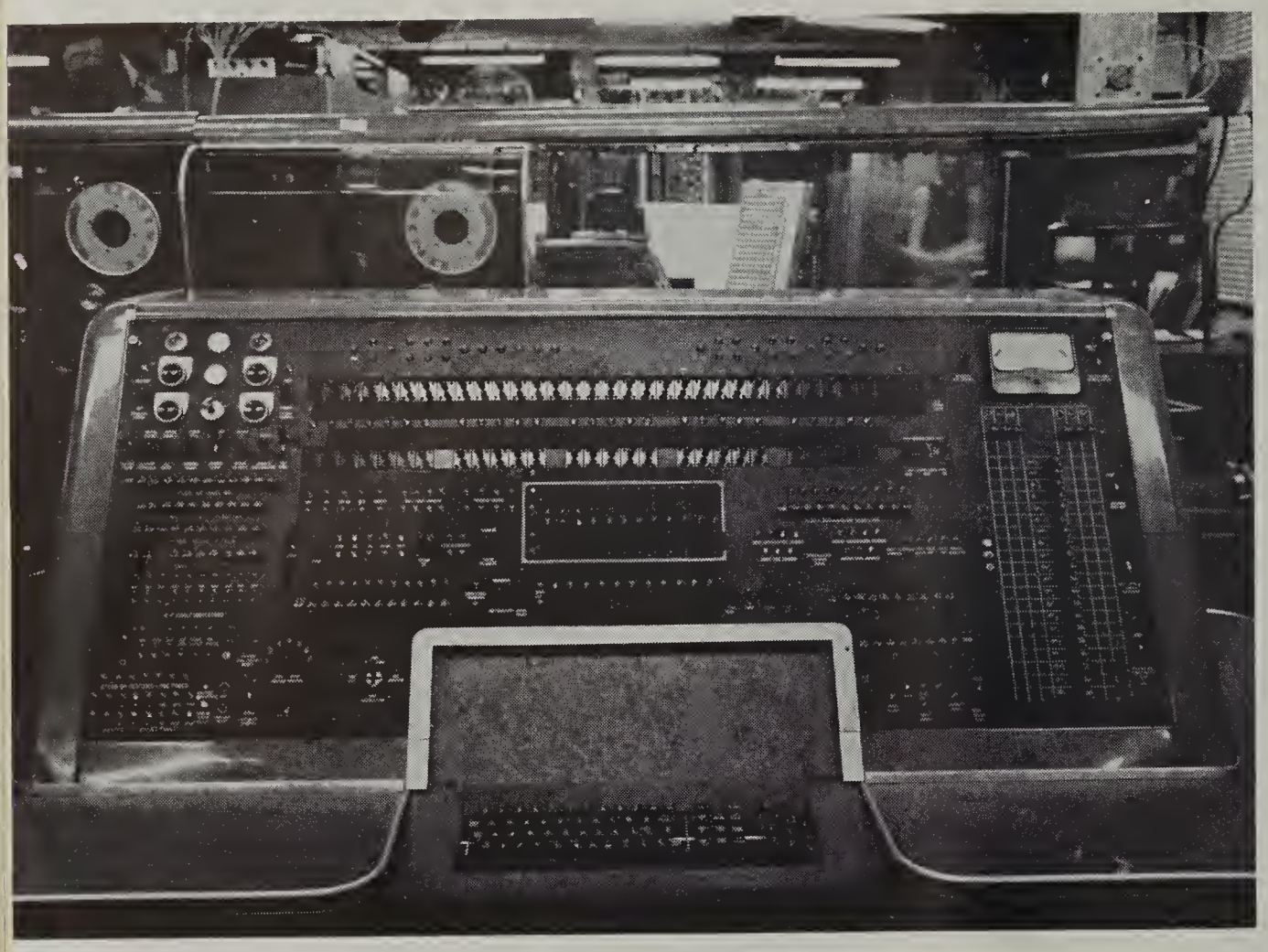
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N, JR.



This is the assembly line where IBM puts together its No. 604 electronic calculator



This is UNIVAC, the large, general-purpose electronic computer built by the Eckert-Mauchly Computer Corp. (a subsidiary of Remington Rand) at a cost of more than $700,000. The Census Bureau is using it.

machine, it has to be cured by rest, electric shock, or lobotomy (disconnecting parts of the machine).

No artificial brain so far built can:

Do initiative thinking.

Make bright guesses, and leap to conclusions.

Determine all its own instructions.

Perceive complex situations outside itself and interpret them.

A clever wild animal can do all of these things. There is reason to believe that some of them will be done in the future by machines.

THERE are two general kinds of computing machines: data-reduction, and mathematical.

Data reduction machines receive voluminous data from physical measurements or description and reduce them to simple readable forms. The machine record cards used to tabulate morning reports are an example. The Post Office Department uses this type of computer in handling money order receipts. The orders themselves are on punched cards.

Mathematical machines receive data and then use mathematical processes, including arithmetic, calculus, logic, etc., to solve a problem in much the same way a human being would, but tremendously faster.

Computers are either "general-purpose" or "special-purpose."

A special-purpose machine is designed to solve problems from one narrow field. An antiaircraft computer is a good example.

A general-purpose machine, however, can solve many types of problems and perform many combinations of mathematical operations according to the way the components are connected up over a period of time. The connections can be rapidly changed. ENIAC, BRAIN ABLE and SCOOP, already mentioned, are of the general-purpose type.

The three kinds of mathematical computers are the analogue and digital types, and the combination of those two, the analogue-digital.

Machines that handle information as measurements of physical quantities are called analogue machines, because the measurement is analogous to, or like, the information. Numbers are converted by the machine for the purpose of computation into physically measured quantities such as lengths, voltages, or angles of displacement. A slide rule is an example; lengths correspond to the logarithms of numbers, and are added and subtracted, and numerical answers are read from the scale.

Results are obtained by interaction of moving parts or electrical signals arranged in such a manner as to solve an equation or perform a set of mathematical operations. The precision of any analogue device depends upon the precision with which it is built, the skill and uniformity of the operator, and the precision which the output (result) can be read from a calibrated scale. It is, in short, subject to systematic and human errors. It performs its operations at the speed of light.

Digital devices are those which perform mathematical operations with numbers expressed as digits which can assume only discrete values, and which give results in digits. Precision depends only on the number of digits the machine can handle. Mathematical operations are done in much the same way as the longhand methods by human beings. The Chinese abacus is an example. Digital computers can be made as accurate as desired. They are somewhat slower than analogue computers.

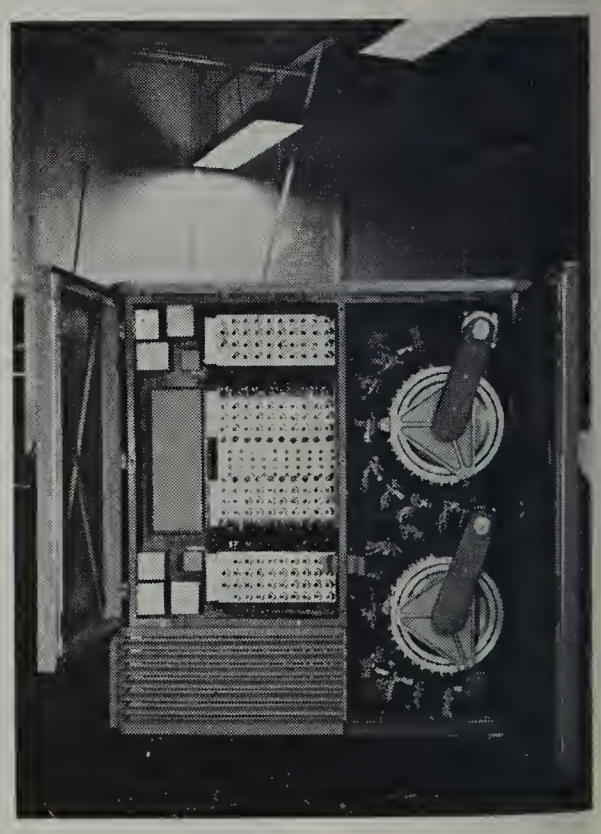
The makers of many new computers seek to obtain both the speed of analogue and the accuracy of digital machines by combining them.

THERE are generally five basic groups of components in a general purpose computing machine (*see cut*).

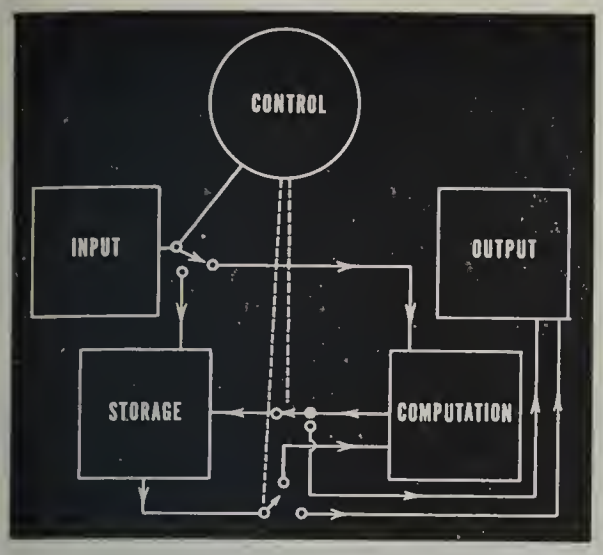
The control block supervises the operation by positioning the appropriate switches at the proper time. It determines the flow of information from system to system. For an analogue computer, control may be exercised by hand-operated switches; and for a digital computer, by relays or vacuum tube gates. Control systems are not necessary in special-purpose computers.

The input system introduces the raw data into the computer. For analogue computers the input may be a rotating

Inside of the IBM electronic calculator.



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Block diagram of general purpose automatic computing machine.

shaft or a variable voltage. For digital computers the input may be a coded punched tape or a magnetic drum with magnetized parts or spots on motion picture type film.

Note that input can go either to storage or computation.

The output system records the solution of the problem introduced into the machine in a way it can be interpreted (read). The output for an analogue computer may be a meter or a mechanical dial. For a digital computer it may be a succession of lights or punched cards or tapes. So the chart shows output can receive either from storage or from the computation.

The storage system simplifies the computer by enabling it to store certain functions or tables to help solve problems. Specially formed, electric, empirically wound resistances or special shaped cams are examples of analogue storage elements. Coded punched tapes representing ballistic tables, rotating magnetic drums or types are examples of digital storage. It can also store answers of one step of a problem for use in a later step.

Information in the storage system can either go to computation or directly to output.

But it is the computation system that is really the heart of the computer for all the other data flow through it. It carries out the mathematical processes. Analogue computers contain devices that perform addition, subtraction and other arithmetical operations and differentiations and integrations for calculus operations. Digital computers, however, will only do the arithmetic processes; calculus problems must first be broken down by numerical analysis into a series of arithmetical operations.

We ourselves may be thought of as automatic computing machines. If you are asked to solve (12 x 12) + 105 = ? here is what you would do:

Read problem with your eyes (*Input*).

Your brain control sends the 12 times 12 to your memory of the multiplication table (*in storage*).

Your brain control takes the answer (144) from memory, looks at the plus sign and tells computation part of your brain to add this to 105 (*Computation*).

You write out the answer by a muscular movement of your hand, else you speak it with your mouth (*Output*).

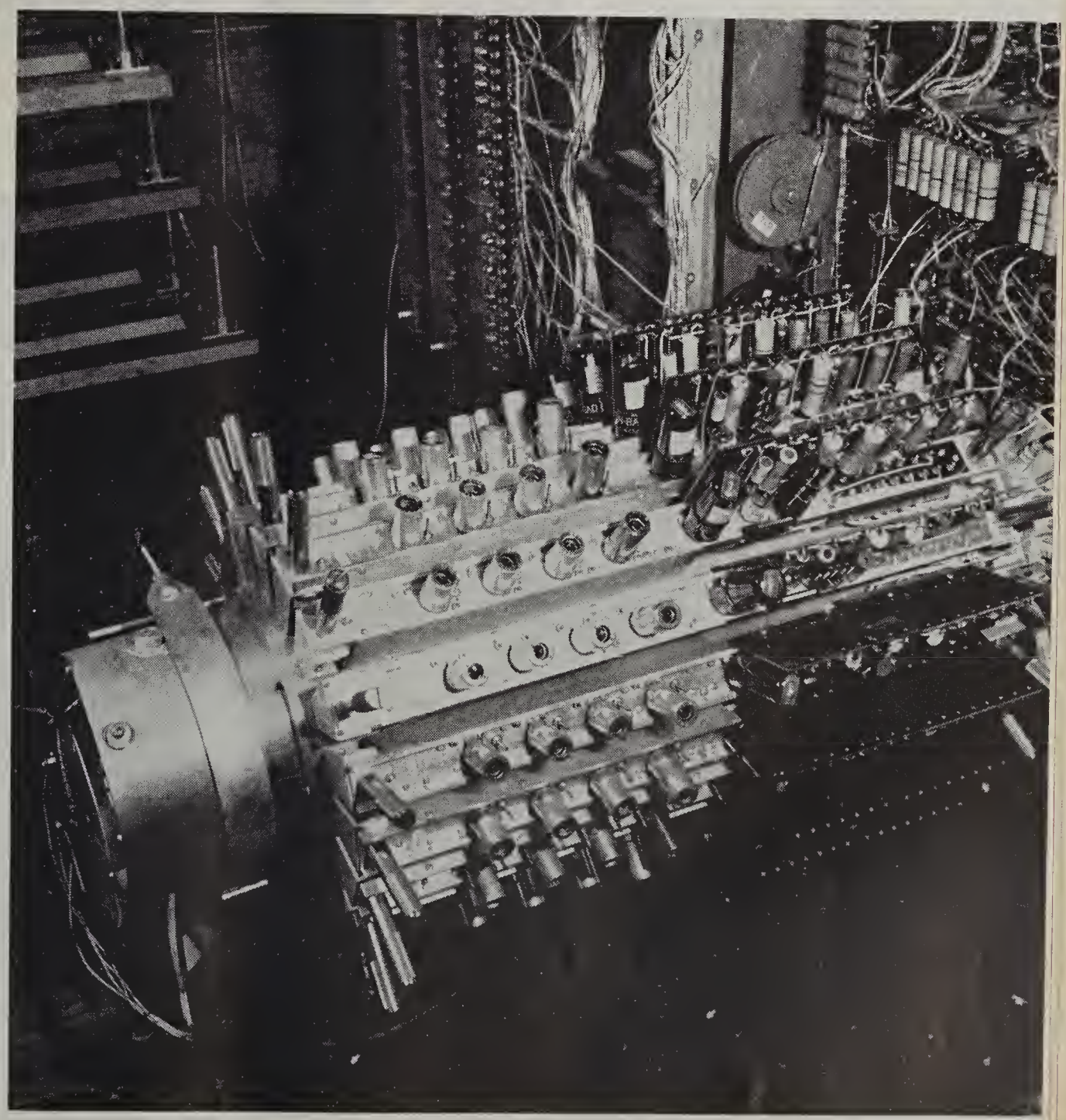
Control is, of course, ever present to bring about the desired flow of information.

IT is highly probable that in the near future the military establishment will be using automatic computing machines to solve many, many routine analytical problems that require at present many staff and clerical personnel. This will mean a great saving in manpower and a more efficient military setup. In the endless struggle for military superiority, the relative speed of advancement of "robot generals" will become a vital test of military leadership by bringing more manpower to the front lines and permitting more efficient tactics.

Cost will somewhat restrict computer use at lower headquarters. The UNIVAC recently built for the Bureau of Census and the SEAC built by the Bureau of Standards will cost nearly a million dollars each. New design and experience will probably cut this cost.

Already, these automatic computing machines have synthetically reproduced many of man's thought processes, but of course they remain "thinking robots." The integrated *muscular* system of the human body has never been equaled in any man-made machine. Science has surpassed the body's ability to perform certain tasks, but pound for pound, dollar for dollar, and inch for inch, considering its adaptability and flexibility, the physical body remains supreme.

Shows some of the working parts of UNIVAC, the Remington Rand computer.





An Air Force evacuation helicopter is refueled when it lands near a hospital in Korea

Oil for the Machines of War

PETROLEUM powers and lubricates the machines of modern war to an even greater extent than it serves the civilian economy of the United States. Oil supplies well over half of the nation's fuel needs at home but that percentage skyrockets in Korea and other lands where Uncle Sam's defense forces are deployed. Without liquid fuels our military force would lose practically all of its striking power; tanks, ships, planes and other mechanized weapons and equipment would be immobilized.

Petroleum products used in Korea include regular gasoline for tanks, trucks, and other vehicles, aviation gasoline, kerosene, fuel oil for ships, lubricants, asphalt, jellied gasoline for bombs and diverse by-products like TNT, DDT, medicines, adhesive tape and plastics. That requires a lot of drum rolling.

Here are a few statistics that give just a hint of the amount of petroleum needed to run a modern war:

An armored battalion requires at least 17,000 gallons of gasoline to move 100 miles.

A plane can consume as much as 980 gallons of high-octane gasoline in one hour's flying. For one long-range round trip, a B-29 requires a tankcar full of high-octane gasoline—10,000 gallons—and the newer bombers far exceed that figure. At the prewar average of 650 gallons a year, that amount of fuel would run a family car for more than 15 years! And yet the jets are even greater consumers of fuel.



Used oil is useful as a dust settler, as this South Korean demonstrates. Dry Korean summers make dust clouds a hazard to heavy military traffic

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The Army uses petroleum to move practically everything that has wheels, from tanks to jeeps and motorcycles. (The tires of those vehicles are of synthetic rubber made from oil.)

The Navy is at least 99 per cent converted to liquid fuels.

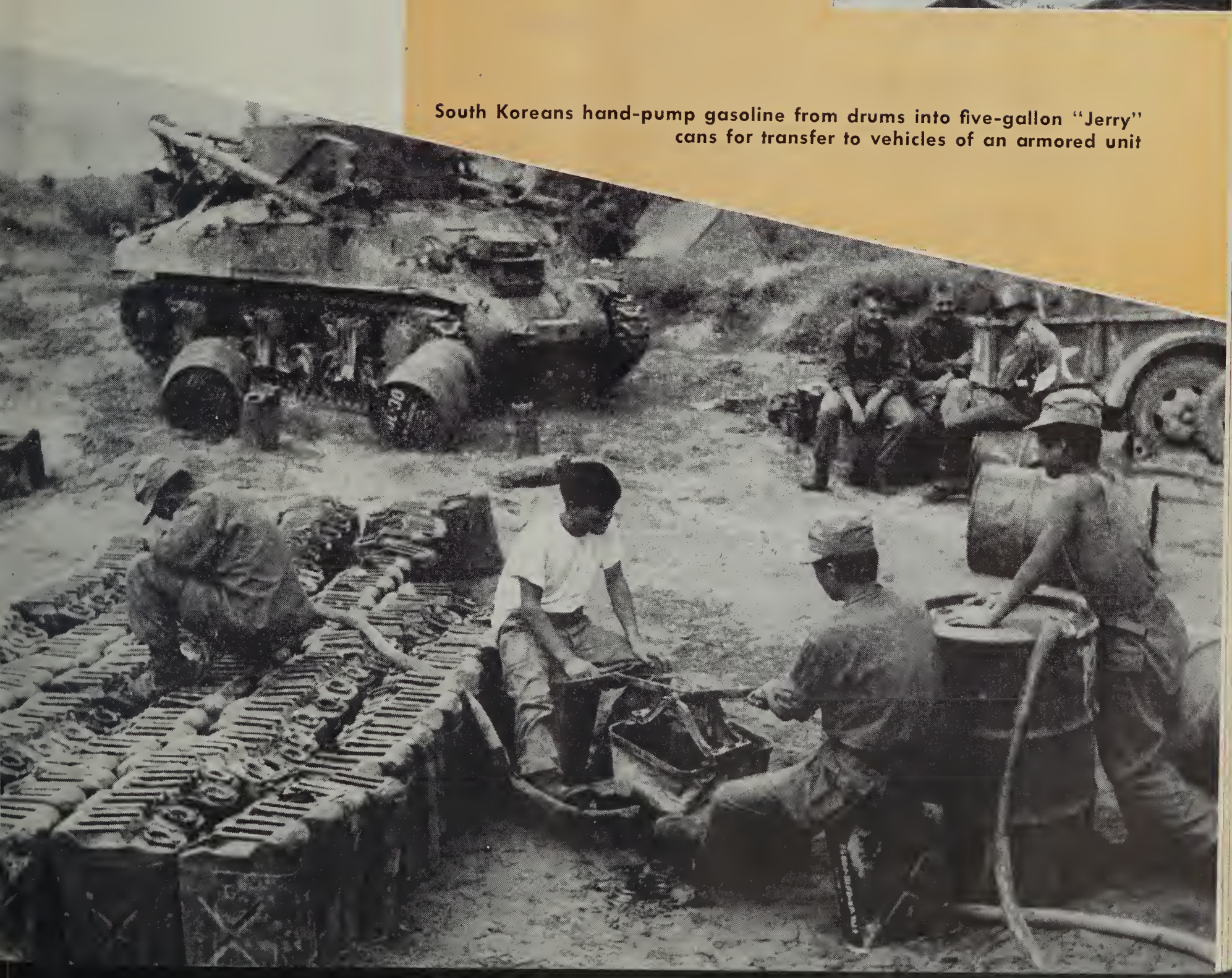
With all of this, however, U. S. military requirements still account for only 5 per cent of this country's total domestic oil demand. In 1952, that demand approximated 2.650 billion barrels.

Latest government estimates are that total demand will double during the next quarter century. That is why the oil industry is vigorously expanding its producing, refining and transportation facilities. Oil men are confident they can keep well ahead of that rising demand. Each year they find about twice as much new oil as is consumed. They believe that even if a global war came, this nation would get all the oil it needs, of the quality it needs, delivered to the places where it will do the most good.





A jeep gets filled at a roadside filling station and Korean laborers unload drums of gasoline from railroad cars into trucks for shipment forward



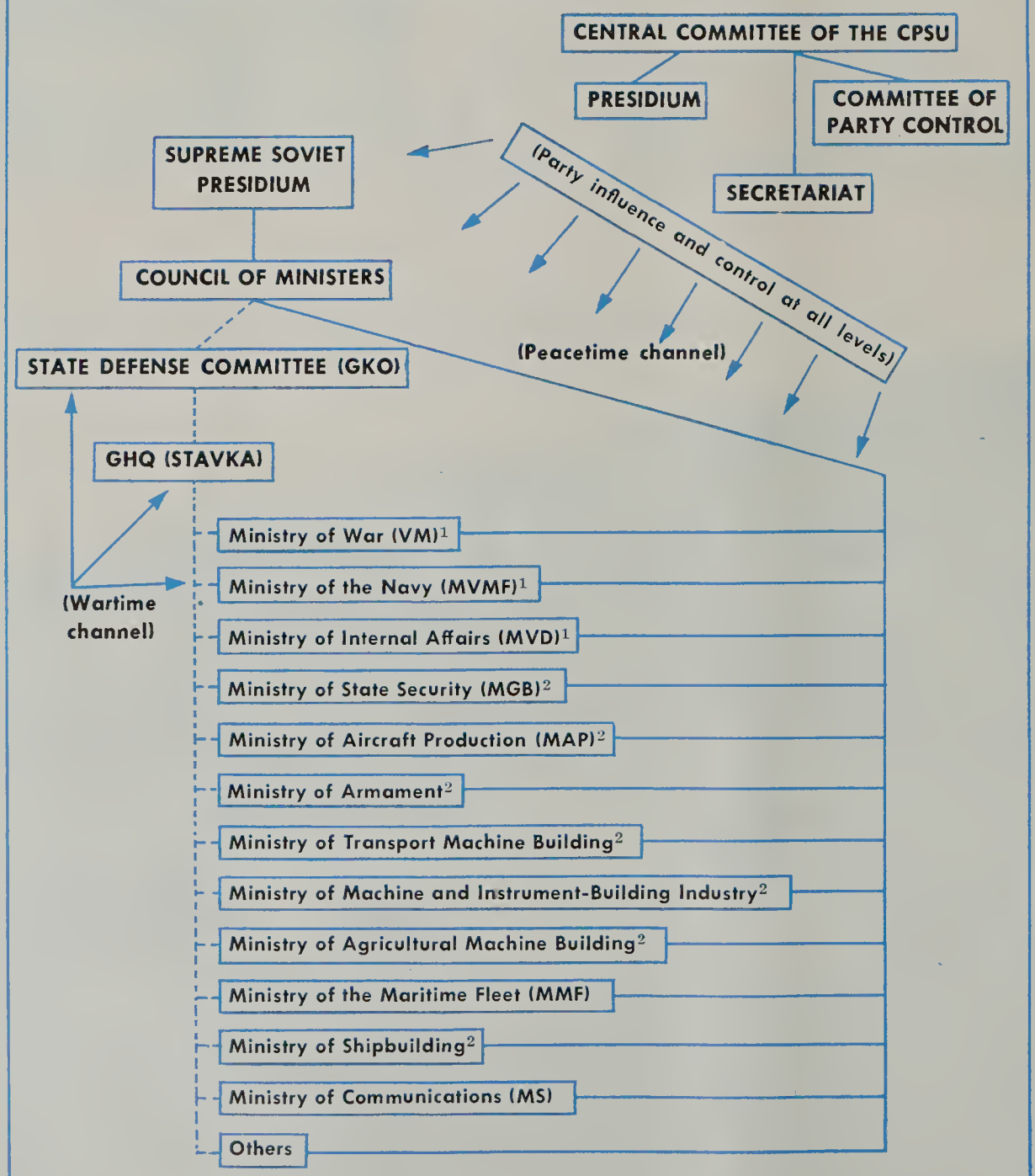
South Koreans hand-pump gasoline from drums into five-gallon "Jerry" cans for transfer to vehicles of an armored unit

THE ORGANIZATION OF THE ARMED FORCES OF THE U. S. S. R.

Raymond L. Garthoff

This article will appear as an appendix in Soviet Military Doctrine, by Dr. Raymond L. Garthoff, to be published this Spring by The Free Press, Glencoe, Illinois.

CHART 1. *The position of the Soviet armed forces in the government structure*



[1]See following diagrams for detailed organization of these ministries.
[2]The Ministries indicated were merged into others or were otherwise changed in a major government shake-up in March 1953, following Stalin's death. The position of the armed forces in the government structure remains unchanged.

THIS article depicts in five charts, and a brief commentary, the organization of the agencies of the high command of the Soviet armed forces.

Ministry Level

The general place of the armed forces in the Soviet governmental structure is diagrammed in Chart 1. Since February 1950, the Ministry of War (VM) and the Ministry of the Navy (MVMF) have been independent of one another. Prior to 1946, they had been combined in the Peoples' Commissariat of Defense (NKO) and from February 1946 to February 1950, in the Ministry of the Armed Forces (MVS)[1].

From June 30, 1941 to September 19, 1945, a State Defense Committee (GKO), comprised of five to eight of the members of the Politburo, headed by Stalin, replaced the *Sovnarkom* (Council of Peoples' Commissars) as the direct authority over all Commissariats engaged in defense work.[2] Directly under it was the GHQ or *Stavka,* a select personal staff of twelve to fourteen top military leaders including the Chief of Staff, which advised the commander-in-chief, Marshal of the Soviet Union Stalin.

Stalin served as Peoples' Commissar of Defense (after February 1946, Minister of the Armed Forces) from July 1941 to March 1947. Upon his resignation, Marshal Nikolai Bulganin, a political figure and his deputy, replaced him. Bulganin remained as Minister, until in March 1949, his first deputy, Marshal

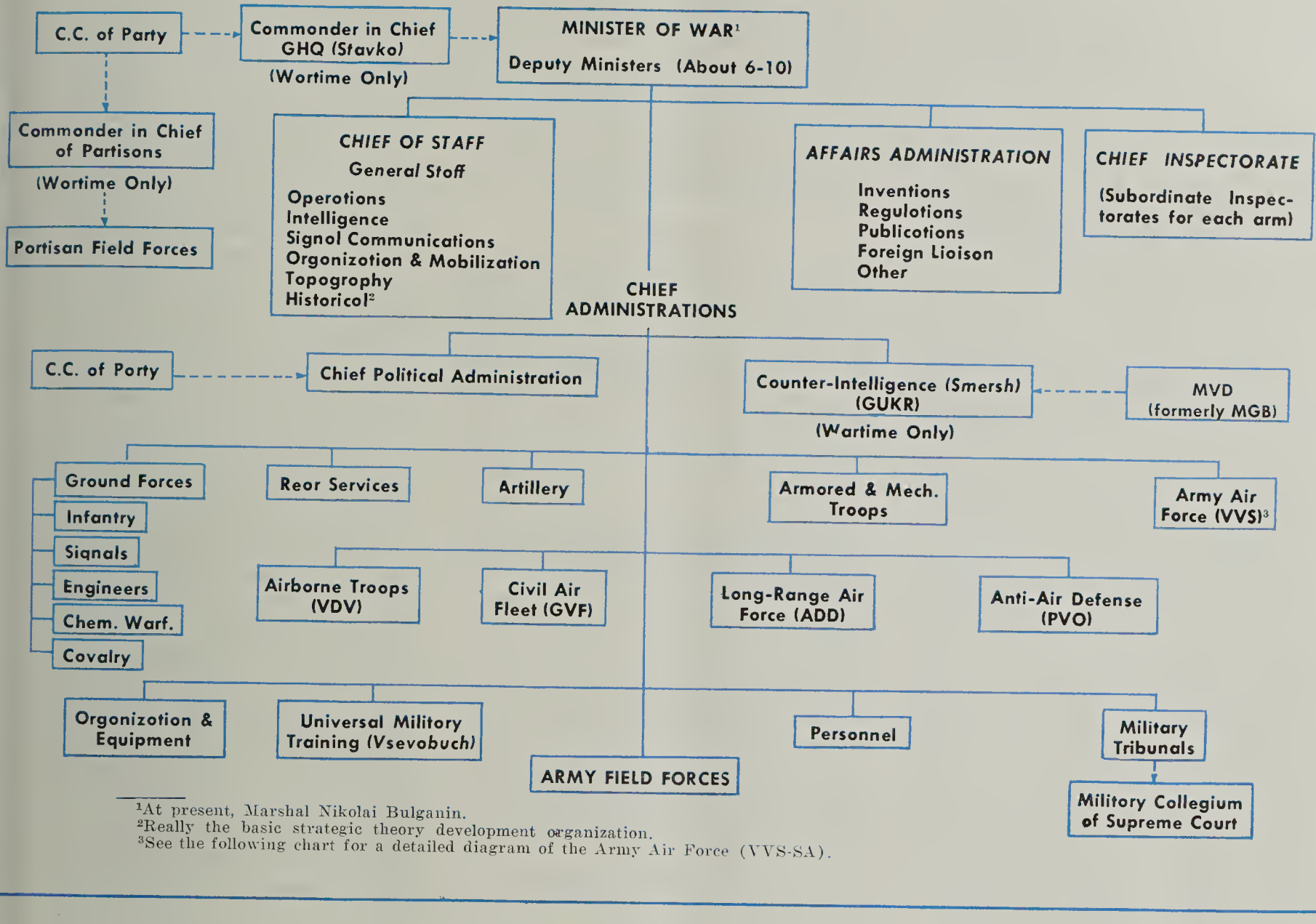
[1]In February 1946, for one month, it was retitled the Peoples' Commissariat of the Armed Forces (NKVS). Just as this article went to press, the Ministry of War and the Ministry of the Navy were merged again into a single Ministry of Defense (MO), under Marshal Nikolai Bulganin.

[2]Originally the five members were Stalin, Molotov, Voroshilov, Malenkov, and Beria. Later Kaganovich, Voznesensky and Mikoyan were added, and Bulganin replaced Voroshilov.

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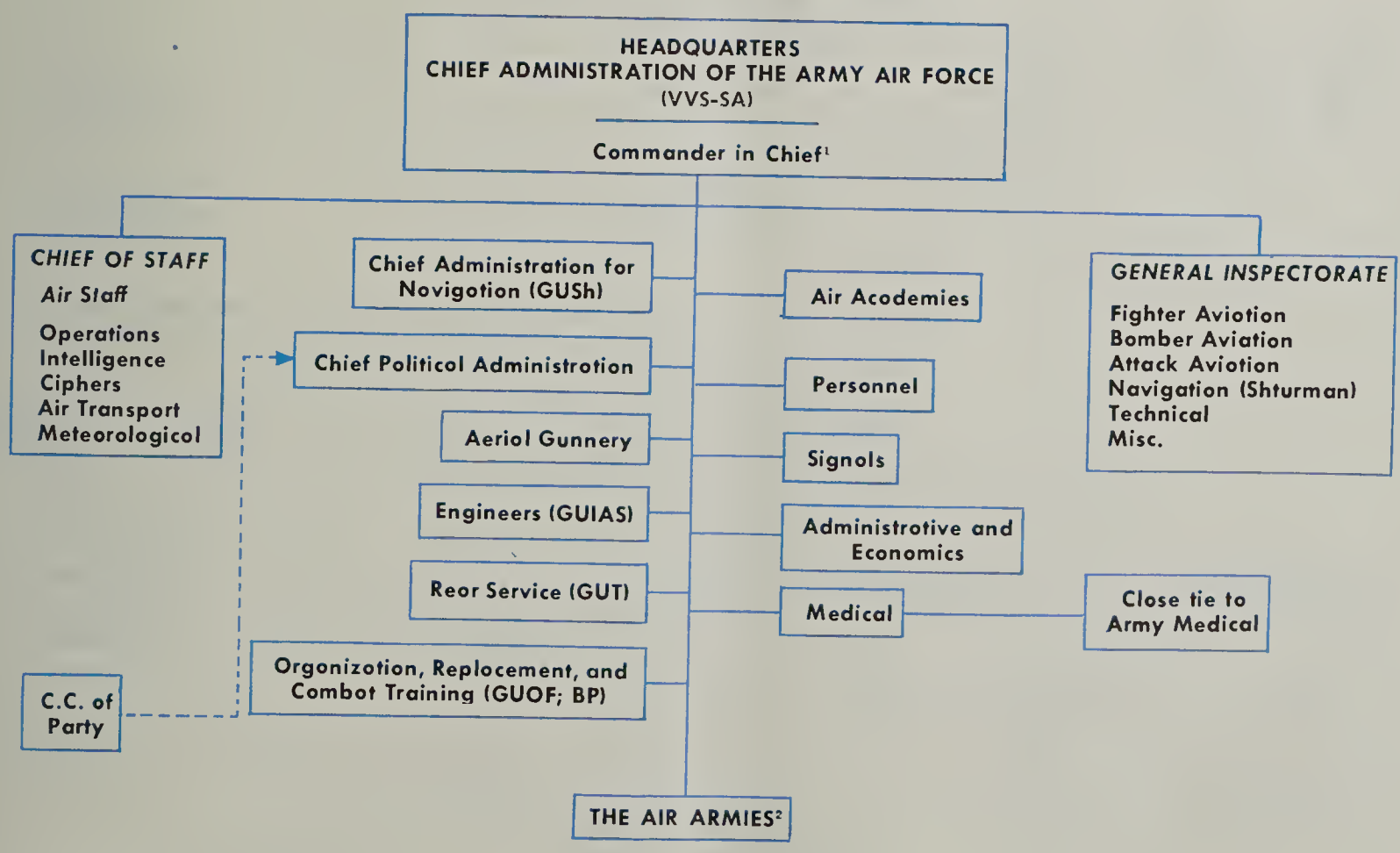
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CHART 2. *The Soviet Ministry of War*



[1]At present, Marshal Nikolai Bulganin.
[2]Really the basic strategic theory development organization.
[3]See the following chart for a detailed diagram of the Army Air Force (VVS-SA).

CHART 3. *Headquarters of the Soviet Army Air Force*



NOTE: NB—Some reports place ADD (strategic bombing) and VDV (Airborne troops) under the Army Air Force (VVS); these are probably incorrect and these bodies remain independent under the Ministry of War.
[1]At present, Col. General of Aviation Pavel Zhigarev.
[2]Tactical support by bombing, ground attack, reconnaissance, and fighter aviation. During the latter stages of the Soviet-German war there were seventeen Air Armies; at present there are probably fifteen.

Alexander Vasilevsky, succeeded him. Following Stalin's death in March 1953, Marshal Bulganin again assumed the post of Minister of War, with Marshals Vasilevsky and Zhukov as First Deputy Ministers.

Marshal Boris Shaposhnikov, former Imperial General Staff colonel, and Chief of Staff in 1919-1920 and 1927-1931, was again in that post from May 1937 until his final retirement in November 1942 (except for a brief retirement while General Kyril Meretskov held the post from August 1940 to February 1941, and Marshal [then Army General] Grigory Zhukov from February to October 1941). His resignation, due to severe illness, brought into that post his protégé and pupil, General (since then Marshal) Alexander Vasilevsky. Duties on the *Stavka* and as its representative at the front caused Vasilevsky, like Zhukov, to be away for long periods, during which his deputy, General A. E. Antonov, was for all practical purposes the Chief of Staff. In 1945, Antonov was Chief of Staff while Vasilevksy prepared and directed the Far Eastern campaign. Upon his return, Vasilevsky resumed his position as Chief of Staff from March 1946 until November 1948. As noted above, from March 1949 to March 1953 he served as Minister of War. Army General Sergei Shtemenko succeeded Vasilevsky as Chief of Staff. He, even more than Vasilevsky, was a relatively junior officer for appointment to this position; he is believed to be a protégé of Vasilevsky. In February of this year Marshal Vasily D. Sokolovsky succeeded Shtemenko as Chief of Staff.

Ground Forces

THE Soviet Army was originally termed the RKKA, or Workers' and Peasants' Red Army, a designation not officially dropped until shortly before the recent war. But the term "Red Army" was retained until September 1946, at which time it was replaced by the designation "The Soviet Army."

Chart 2 diagrams the general organization of the present Ministry of War, which differs in some respects from the wartime Commissariat of Defense. It should be stressed that the Chief Administrations (GU)[3] are not command channels to the Army field forces, but in most cases concern themselves largely with technical matters including ordnance development. The exceptions are noteworthy and are discussed below.

The wartime Chief Administration of Counter-Intelligence (GUKR or *Smersh*) was actually not subordinate to the Commissariat at all, but remained under the political police (in the NKVD until April 1943, when it was removed, and in May 1943 placed under the new NKGB, which became in March 1946 the MGB, or Ministry of State Security). Thus, counter-intelligence has been conducted exclusively by the MGB-MVD which attaches its own officers who remain responsible only to it. This should not be confused with Military Intelligence (GRU), not shown on Chart 2, which is under the Intelligence Section of the General Staff, and is a part of the army.

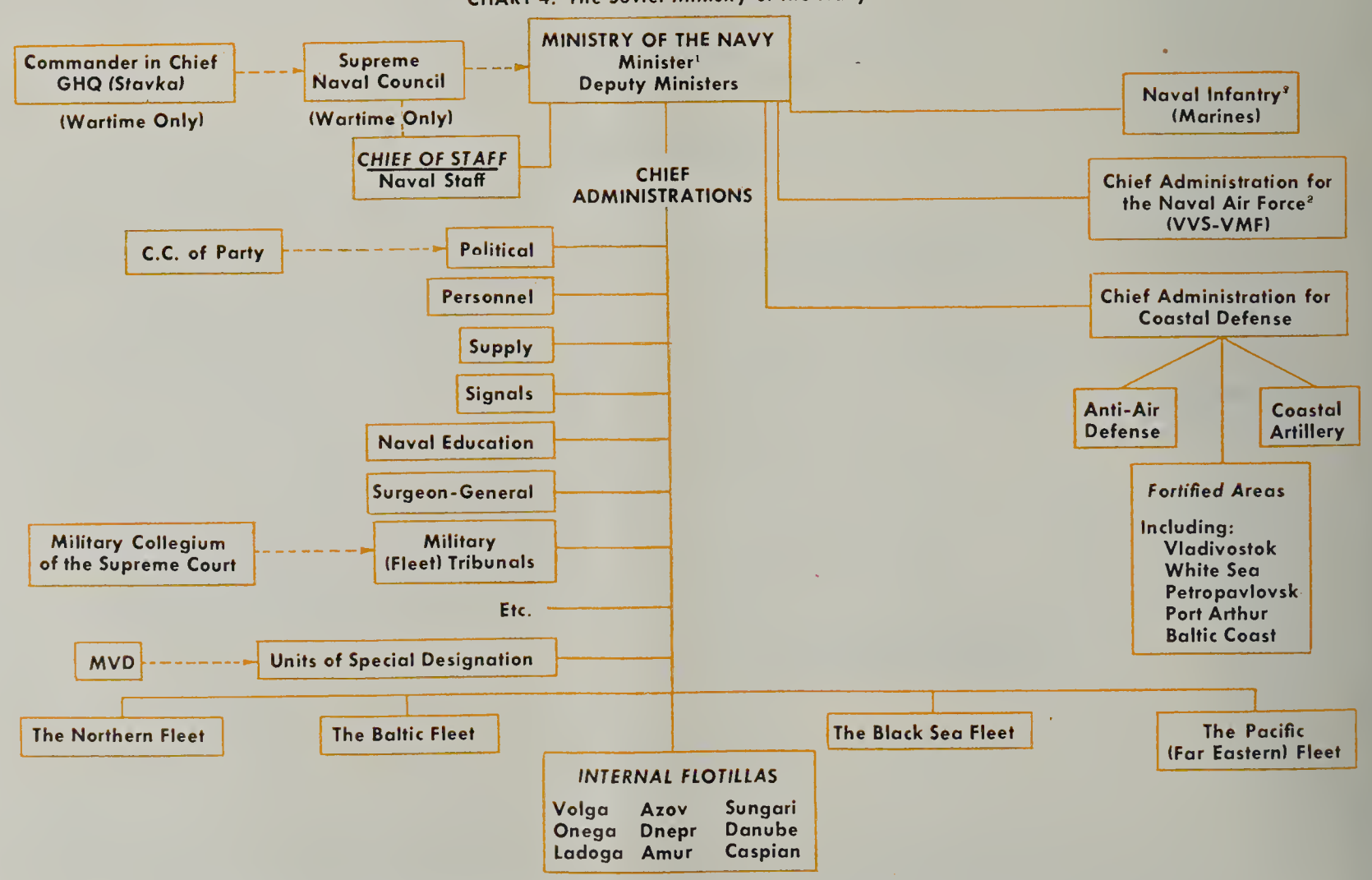
Similarly the Chief Political Administration is closely tied to the Central Committee of the Communist Party.

The wartime partisans were organized (with increasing central control) under a special partisan command headed by Marshal Voroshilov.

Finally, the existence of separate Chief Administrations for Airborne Troops (VDV), the Long-range Air Force (ADD) and Air Defense (PVO) is significant, since it reflects their special character as independent from field army group command. These forces are considered as special resources of the GHQ (*Stavka*); the first two to be di-

[3]This term is sometimes translated "Main Directorate" or "Main Administration."

CHART 4. *The Soviet Ministry of the Navy*



[1]Presently Vice Admiral Nikolai G. Kuznetsov.
[2]Combat organization of the Naval Air Force is four fleet air arms, land based but subordinate to the corresponding fleet commands.
[3]A Chief Administration of Naval Infantry is believed to exist.

rected or assigned for special missions, and the latter as an independent defense command (embracing warning systems, fighter interception, and anti-aircraft artillery).

Air Forces

THE air power of the USSR is divided among seven air forces: the Army Air Force (VVS-SA), the Naval Air Force (VVS-VMF), the Fighter Aviation of the Air Defense (IA-PVO), the Long-Range Air Force (ADD), the Civil Air Fleet (GVF), the Arctic Air Force (under the Chief Administration for the Northern Sea Route), and probably a small MGB-MVD Air Force.

This is not so complex or confusing as it may appear. The main air force, often called (abroad) the Soviet Air Force, or SAF, is the Army Air Force, literally, the "Military Air Force of the Soviet Army" (VVS-SA). The VVS is subordinate to the Ministry of War; there is not, and has never been, a Ministry of the Air Force. Chart 3 is a diagram of the internal organization of the Army Air Force. As will be seen, the field force consists of air armies, which are assigned to army groups ("fronts") or other army field commands for tactical support by fighter, ground attack, reconnaissance, and bomber aviation.

The Navy

CHART 4 shows the organization of the Ministry of the Navy. The combat commands are the four fleets: Northern, Baltic, Black Sea, and Pacific. Coastal ground defenses (which are a concern of the Navy within fifty kilometers of the coast, except in the front combat zone), naval bases and the land-based naval air force are all subordinated to the appropriate regional fleet command. Data on the organization of the Ministry of the Navy are only approximate.

CHART 5. *The Ministry of Internal Affairs (MVD)*[1]

COUNTERINTELLIGENCE	Since 1946, all counterintelligence has been central in the MVD-MGB. During the last war, GUKR (Chief Administration for Counterintelligence), also called "Smersh" (Death to Spies), was the NKVD, later NKGB-MGB, and now MVD organization in the Armed Forces.
INTELLIGENCE	Positive intelligence is carried on in peace and war, conflicting to an undetermined extent with Military Intelligence (GRU), (which is probably the better in military intelligence).
INTERNAL SECURITY AND FRONTIER DEFENSE TROOPS	Until very recently, these were MGB functions. Now the frontier guards, internal security troops, labor camp guards, coastal frontier sea patrol, the small police air force, and in wartime rear security detachments and POW guards, are under the MVD.
THE MILITIA (POLICE)	The uniformed civil police or "militia" was also an MGB chief administration until it was recently merged into the MVD.

[1]Until recently the MGB (Ministry of State Security) had control over the frontier guards, internal security troops, and militia. In March 1953, the MGB was merged into the MVD, and placed again under Marshal Beria.

Glossary of Soviet Military Organizations

This brief glossary of Soviet military organizations is confined to organizations mentioned in the accompanying article. Our readers who are students of the Russian language or who are interested in extending their knowledge of Soviet organization may find this glossary of value. Others will doubtlessly find the author's translation of these titles into English more than adequate.

Voennoe Ministerstvo (VM)	Ministry of War
Ministerstvo Voenno-Morskogo Flota (MVMF)	Ministry of the Navy
Narodnyi Kommissariat Oborony (NKO)	Peoples' Commissariat of Defense
Gosudarstvennyi Komitet Oborony (GKO)	State Defense Committee
Raboche-Krest'ianskaia Krasnaia Armiia (RKKA)	Workers' and Peasants' Red Army
Sovetskaia Armiia (SA)	The Soviet Army
Glavnye Upravaleniia (GU)	Chief Administrations
Glavnoe Upravlenie Kontr-Razvedkoi (GUKR or *Smersh*)	Chief Administration of Counter-Intelligence
Voennye Vozdushnye Sily (VVS-SA)	Military Air Force of The Soviet Army
Ministerstvo Vnutrennykh Del (MVD)	Ministry of Internal Affairs
Narodnyi Komissariat Vnutrennykh Del (NKVD)	Peoples' Commissariat of Internal Affairs
Ministerstvo Gosudarstvennoi Bezopasnosti (MGB)	Ministry of State Security
Ministerstvo Oborony (MO)	Ministry of Defense

Paramilitary Organizations

The Ministry of Internal Affairs (MVD), before March 1946 the NKVD, is the successor to the original *Cheka* (ChK) (later GPU and OGPU) political police. The MVD was gradually shorn of its para-military, intelligence and counter-intelligence functions from 1943 to 1949, as they were placed in the Ministry of State Security (MGB). Following Stalin's death, in March 1953 the MGB was merged in the MVD, and Marshal Beria again became Minister. Chart 5 outlines its para-military functions.

The prewar *Osoaviakhim* or Voluntary Society for the Support of Aviation and Chemistry, which had civil defense and premilitary training duties, was split in May 1948 into three new societies: *Dosarm*, the Voluntary Society for Support of the Army; *Dosflot*, the Voluntary Society for Support of the Navy; the *Dosav*, the Voluntary Society for Support of the Air Force. In September 1951 they were again amalgamated into a single central All-Union Society called *DOSAAF*, under Colonel General V. I. Kuznetsov. Membership is estimated at over fifteen million.

Editing Is Such Sweet Sorrow

It is a good idea at times for the editors and the readers to consider together the purposes and problems of a publication like this one. It helps give perspective and sometimes it helps clear the air—for the editors as well as the readers. This seems to be a good time to do it, for there are problems connected with the publication of the COMBAT FORCES JOURNAL that we think may be more easily solved if our readers know about them and give some thought to their solution.

THE place of COMBAT FORCES JOURNAL and the Association of the U. S. Army (including its predecessor magazines and associations) is self-evident. For a half century it has promoted the best interests of the Army as it conceived those interests to be. Its continued existence is evidence that it has been able to shift with the challenge of the times and fill the needs of the Army. In general terms, its missions are:

To improve the professional skill and knowledge of every person in the Army.

To interpret the Army to its individual officers and men.

To give expression of the needs and desires of individuals in the Army to the Army Department.

To promote the best interests of the combat arms and to explain them to the rest of the Army and to the public.

To act as a meeting place for the exchange of ideas and opinions.

To inform the civilian population of the needs and deeds of the Army and to interpret the Army to those civilians who have enough interest in their Army to dip into the pages of a professional military magazine occasionally.

Two powerful forces have been present to guide the editors and to control the direction of the magazine and association. First are its readers. At any time that a sizable group of them concluded that the magazine no longer held their interest or was failing in its missions, they could drop their support by failing to renew their memberships. When this happens it would be the job of the Executive Council of the Association—its governing body—to change the direction of the editors, or even the editors themselves (perish the thought!). The other power is the power of the Army headquarters officially to frown upon the Association indirectly or to intervene in its affairs directly. The Editor is a retired officer of the Regular Army and several of his assistants are active members of the National Guard or Army Reserve. Also the members of the Executive Council are soldiers of the Regular establishment, the National Guard and the Army Reserve. So the power of the Army officially to intervene in the affairs of the Association is present, if less direct than normal military control.

This power to intervene officially is as it should be. It is this tenuous connection with the official Army that gives this magazine authoritativeness without making the Army responsible for what appears in it. The advantages of this are noted on the contents page each month where you can read that "The COMBAT FORCES JOURNAL is not the mouthpiece of the Department of Defense. . . ."

THAT sentence says a great deal if you consider it in connection with the relationship we have just described. It means that the Department of Defense (and included in that term when we use it this way is the Department of the Army and its offices, commands and installations) believes in responsible freedom of speech by individual members of the uniformed services. This is, of course, but another expression of the deeply imbedded freedoms we have inherited from our forefathers and from our English origins. The Founding Fathers counted the fear of military dominance among the enemies of freedom and so it is greatly significant that no American soldier has ever violated his freedom to speak to such an extent that the people have found it necessary to forbid responsible free speech to military men. Army Regulations encourage it for they say that "the writing . . . on topics of military or professional interest . . . is authorized and desirable."

Civilians without any government connection may practice free speech with impunity, safe from official action so long as what they write or speak isn't libelous or slanderous. But military men and civilians with government connections have a greater responsibility. Their freedom to speak and write does not entitle them to speak or write so as to embarrass the government, their superiors or subordinates. Because they have official position they must temper the exercise of their freedom to speak or write with responsibility. And we must say that military men have a greater responsibility than mere civilians in government. Responsibility to themselves at least, if not their government. For while civilians can presumably only be fired for speaking unwisely, military men can be court-martialed.

Army Regulations say that all of the writings for publication of military men shall be reviewed for "deletion of classified matter and review for accuracy, propriety, and conformance to policy."

We are not alone in holding some reservations about the wisdom of the regulation as written (but not the thoughts behind it). Security is rarely a prob-

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lem. No patriot would want to imperil his country by revealing a fact that might make his country less secure and most of us most of the time will not question the wisdom of the officials charged with determining what should be classified.

So the wisdom of requiring a review for security is unquestionable and is not a problem. Nor is "conformance to policy" when the writer is ostensibly stating policy. But he should be able to state—and we think most soldiers will agree with us—that he thinks the policy ought to be thus or so, so long as he doesn't attack or belittle directly or indirectly the makers of the policy he thinks is wrong.

The wisdom of reviewing for accuracy would seem to be unassailable, but you would be surprised at how "facts" in a controversial question can be red-pencilled with a vigorous, slashing "not so!" in one office and punctuated with an emphatic "and how!" in another. It all depends upon the point of view.

WE come to propriety. What is it? A shorter dictionary gives five definitions, the first and fourth of which are: "conformity to established standards" and "rightness or justness." Obviously the last isn't much good when even accuracy can be debated. Of the first let us say that many books have been written on ethics and the examination of "established standards" in all levels of our society, and just which of several established standards is the correct one no one can say authoritatively. A boss or a commander may say what they are to him and if he is in a position to make his standards stick, they are the guiding ones within the confines of his control. But no farther. And if he is a reasonably intelligent and far-seeing man he may be afflicted with occasional doubts about his ability to determine just what the established standards really are in some lines of conduct. Actually every man has to determine for himself what standards he will live up to and this applies even to military men, for the oath of allegiance of the soldier leaves him a wide latitude of behavior. He can read *From Here to Eternity* from beginning to end, muttering "stinking, inaccurate" but getting something from it none the less, or he can toss it aside after reading a chapter or so because he doesn't believe it suitable for one in his position. He may read it himself but forbid it to his wife—if he is a man rare among men. But when he does that he is exercising his decision on the propriety of the book. Plainly the making of such a decision is either an overly egotistical or an exceedingly dumb-witted thing to do, or both. In short, propriety is such a nebulous quality or condition that it can't be written into law or regulation so as to get general agreement. Furthermore the soldier who writes or speaks in an unfitting way can be called to book much more easily on other counts in the code of conduct.

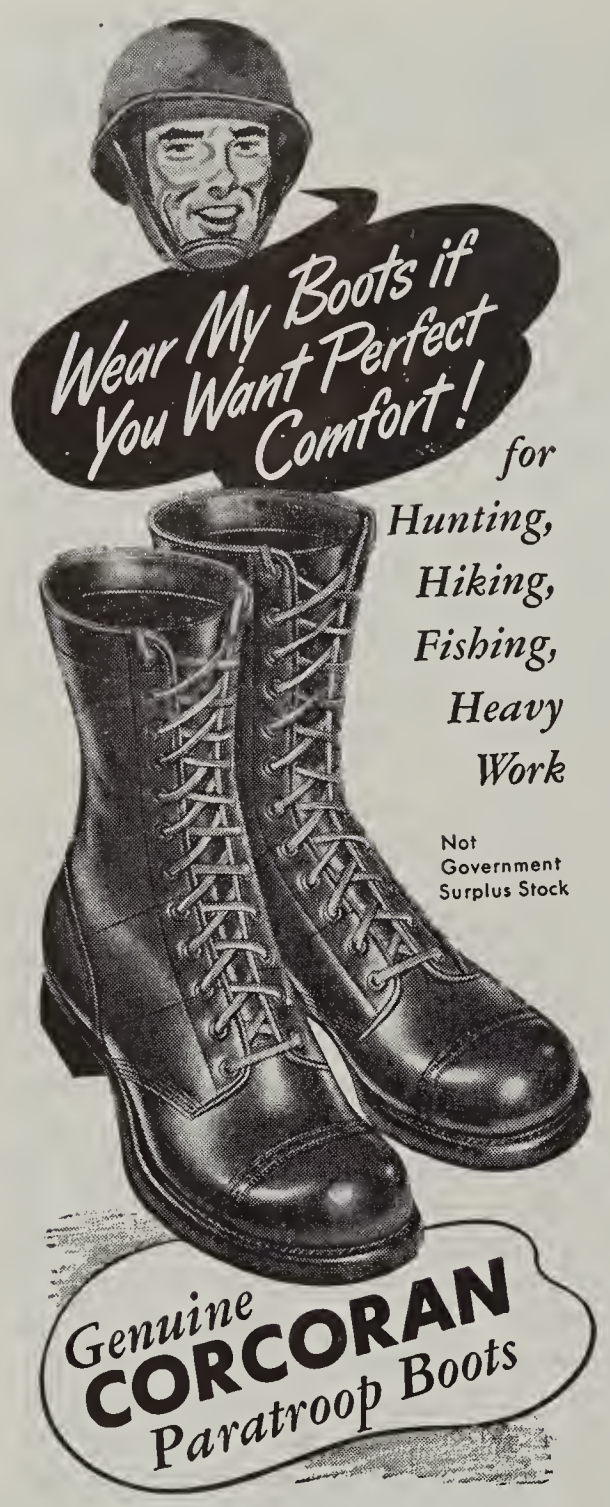
WHAT has all this to do with the JOURNAL and its readers? Quite a bit, as a matter of fact. A few months ago we received an article written by a reserve officer that (1) found fault with the Army's concepts of the way it uses motor transportation and suggested a solution; (2) had a fictitious sergeant tell a private who had asked "where are the trucks" that "the officers have got 'em"; and (3) had one or two minor inaccuracies which he later corrected.

We submitted the article for review to the Department of Defense, and they sent it on a slow and involved journey to several staff and technical offices of the Department of the Army and to a large Army headquarters. In time it came back. And with it were not only the various exceptions taken to it, but two long and almost ill-tempered criticisms of it. In short, the offices that took exception to it did so on the grounds of propriety (with the exception of the actual errors which they correctly pointed out). Both critics said that it was wrong for the sergeant to be saying that the "officers had the jeeps," although we doubt if anyone would have the nerve to say that no sergeant had ever said such a thing, or that the comment wasn't applicable to the situation the writer was discussing. One of the critics wrote—and this was in an official letter—that such a comment as that one was meat for the Communists and anything critical of the U. S. Army officer corps was to be shunned for the aid and comfort it gave the enemy. The absurdity of this argument seems obvious. If we are to shut our eyes to our own failures and refuse to admit their existence, the enemy is better served than if officers can openly confess that things could be better and openly suggest improvements. Finally one of the critics declared that the article was "poorly written and organized." This was so clearly out of line—for after all the decision about literary merit is one for the editors and not for staff officers—that the reviewing officials in the Office of Public Information agreed that the officer went beyond his functions in that particular at least. We thought he had in several others. The upshot was that the article appeared with a washed-out, thin version of its original rich full flavor.

MAYBE this doesn't seem very important or vital, but the principle is very important. If younger officers are to have their serious and carefully thought-out articles criticized in official endorsements by an occasional senior officer who thinks the *status quo* is a bit too radical—they will soon decide that their careers are more important than the few bucks they may get from an article in COMBAT FORCES JOURNAL and that the professional credit that they thought would come from their bylines is nothing but ashes in their mouths.

Our position, as briefly and clearly as we can make it, is this. A magazine article for a service journal or a general publication is not an official staff study that requires "concurrences" up and down the line. It is not the voice of the Secretary of the Army or the Chief of Staff unless their names are on it or it is otherwise identified as such. And it does not necessarily reflect the opinions and views of any part of the Army, but simply the personal views of the writer. It should be cleared for security by a responsible officer. Inaccuracies may be pointed out; that would be helpful to both the writer and the editors. But the reviewing officer should not concern himself with propriety—let the officer suffer the fate that will rightfully befall him if he transgresses the code. The chances are that if it does it wouldn't be accepted by an editor, for editors have standards, too. And these standards can be counted on to protect the Army from the transgressor who might do the Army or the nation real or lasting harm. What slight chance there might remain for undesirable things to be printed under such a policy would be more than offset by the fact that the policy would free the Army from the dubious task of regulating standards of conduct and conformity in the realm of ideas and opinions and save the strain on the hearts of officers whose blood pressure leaps at the sight of an unconventional idea or expression, but who are uncommonly good soldiers and ought to be used as soldiers and not as censors of their colleagues' minds.

We could go on with examples of misguided but honest zeal in the realm of censoring the minds of fellow officers. Actually we have several much more serious examples in mind, but the re-



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CF-243

sponsibility of editors that we mentioned above impels us not to mention them at this time. We may some day, though.

THERE is one other aspect of the job of editing a service journal that we must get off our chests. Earlier in this piece we spoke of the close relationship that exists between the magazine, its staff, and the Executive Council of its Association, with the official Army. That relationship, properly used, could be of great value to the official Army. Not as a medium for propaganda but as a means to disseminate to the whole Army information that cannot properly be included in official memorandums or directives. That such media are necessary is evidenced by the many mimeographed or multigraphed newsletters produced regularly by various commands and in the official magazine or pamphlet type of publication issued monthly, quarterly, or spasmodically by various offices of the Army and the Department of Defense. Most of these publications have been started since 1945 and they certainly serve a purpose, although every one of them does less than a full job because of the restricted number of copies published and because, since they carry the official "word," they must be edited by concurrence, and thus have little of the vitality of good individual writing and expert editing. There are notable exceptions, to be sure; so notable in fact as to prove the case for mediocrity that can be made against the average run of them.

The COMBAT FORCES JOURNAL could not possibly be substituted for all those publications. We don't have the space and if we tried to do this, the CFJ would no longer be the magazine you are accustomed to and like. But we do believe that the Army could make fuller use of the COMBAT FORCES JOURNAL than it does. It could, for example, help the editors prepare articles that would launch valid Army views into the realm of discussion. A case in point was General Bradley's article two and one-half years ago on "U. S. Military Policy." This important article was published in *The Reader's Digest* simultaneously with our publication. *Reader's Digest* has more than a hundred times the circulation of COMBAT FORCES JOURNAL but General Bradley asked us if we would publish it at the same time because he wanted his fellow soldiers to read it. A similar use of CFJ was General Collins's article on small-unit tactics a few months ago.

The advantage to the Army of the publication of such important articles in this magazine is obvious. But there is much more we could do—with some official cooperation. And we have on our desk right now a splendid example of how the failure of one section of an Army department to cooperate with us turned out to be a disservice to the Army.

YOU may recall that a few months ago the Johnson Preparedness Subcommittee published a report on wastage of manpower in the services and made some palpably uninformed criticism of the infantry battalion. Even uninformed criticism can only be answered with informed facts, so one of our staff went to the Pentagon to see if he could dig up a few facts to buttress what we already knew to answer the criticism. We found an officer who knew his stuff and who had at his disposal a staff study of the fire power of the infantry battalion and an analysis of its manpower requirements. At least he said he had such a document. He didn't let us see it, nor would he let us see his "own" article written for publication, he said, "in a national magazine." Our staff member protested that all the CFJ wanted to do was to help the Army refute an uninformed attack, but it got no help from that officer, who after a phone call disappeared from his office for five minutes, then returned to say that his superiors agreed with him that it wasn't possible to help us. A day or so later the Department of Defense distributed a "fact sheet" on the fire power of the infantry division for the press, and armed with that and the knowledge and experience of the editorial staff, we editorialized a bit on the subject and pointed out some of the errors and misconceptions in the report.

That was several months ago . . . before Thanksgiving or earlier. But early in March an official Army publication appeared with the article "written for a national magazine" in it. That Army publication may be "national" in a certain sense of the word but not in the sense normally associated with it. Nor is its circulation—distribution is the correct word—"mass" even in the Army.

ALL this sounds like a massive gripe. And that it may be. But the mental health experts tell us that release of pent-up complaints is the beginning of a return to normal spirits. So the editors feel better and maybe you have found something of value in all of this. For it is your magazine and our problems are yours, if you want to help us shoulder them.

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PUT 'EM ON TRACKS

Only tracked logistical vehicles will give armor true mobility

Major Lamar McFadden Prosser

NOT since the taxicab movement in the First World War had there been a more dramatic logistical novelty than the Red Ball Express in 1944. It was monotonous but it was magnificent! Over more than 400 miles of roadway, across the breadth of France, trucks in continuous cycle, lifted eight thousand tons of supplies a day. From the congested dumps of Normandy, through villages already weary of liberation, seven thousand trucks pounded endlessly towards the Allied armies whose offensive power was being slowly strangled just as they reached the hastily manned defenses of the Reich itself. Our armies had made unprecedented gains since the breakout at St. Lô and now unprecedented logistical efforts were required to supply those armies.

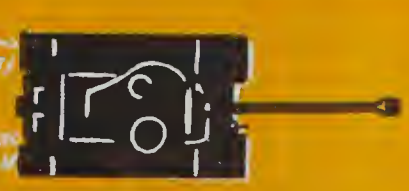
Four infantry divisions were grounded in Normandy while their organic transportation and drivers were shuttled into the Red Ball Express. Four complete divisions as effectively neutralized as if by enemy action. "All along the front," wrote General Eisenhower, "the cry was for more gasoline and more ammunition. Nevertheless, we had to supply each force for its basic mission and for its basic mission only." In spite of the most heroic efforts, the Red Ball was able to provide the combat units with only the minimum essential supplies. For lack of gas our armor was paralyzed at perhaps the most crucial moment of the entire campaign.

There is something so exciting about this valorously improvised supply operation that it is in danger of becoming a legend complete with all the inaccuracies of a folk-tale. We are already beginning to forget that it was really an expedient that failed. We have every right to be proud of it as a demonstration of American adaptability and talent for improvisation, but we have no right to assume that it can ever be repeated. The truth is that motorized divisions and motorized supply columns were obsolete when we invaded France. Only our strength in the air made their activities possible. If the enemy had had any considerable air power, not only the Red Ball Express but many of our tactical movements would have been impossible. Our enemy, who certainly had had the experience to make mobile warfare work, found such mobility impossible with his truck- and cart-supplied army when we dominated the skies above him. Wheeled vehicles could no longer provide the mobility required by the conditions of 1944. Neither the German Army, on the defensive, nor the Allied Forces, pressing the attack, found wheeled transport adequate for the job during that last winter of the war.

This inadequacy had been predicted in the 1930s when Captain B. H. Liddell Hart and Major General J. F. C. Fuller had each, separately, come to the conclusion that the tank, to which the new mobility was tied, would never produce its full effect until the other arms and services upon which the tank must depend were brought up to the tank's standard of speed and cross-country performance. What was visualized in 1930 was an armored division which would carry with it its own supporting arms and supply services in order to permit it to fight free of the restrictions imposed by roads. Armored forces thus organized, they reasoned, would be capable of breaking through the brittle crust of position defenses and, once pierced, these defenses would be shattered by violent exploitation in the enemy's vulnerable rear areas. The success of this form of combat depended on mobility more than sheer weight of mass. These ideas were only gradually and only partially accepted. So novel was this concept of the tactical use of mobility, however, that for three years the German Army had considerable success, although only partly tracked. Its successes were due as much to shock and the paralyzing effect of the unexpected as to the strength of their army.

The easy victories of this period obscured from

MAJOR LAMAR MCFADDEN PROSSER, Armor, enlisted in the Army in 1939, was commissioned in 1942, and integrated into the Regular Army in 1946.



all but the most acute observers the fatal flaws in the basic organizations. It became apparent to all, though, when the wheeled vehicles of the support and supply elements of the German armies bogged down in the trackless Ukraine.

Much had happened in those first three years of the war and by the fall of 1944 the inherent weaknesses of armored organizations nullified their offensive power. An armored division was not mobile as long as it was dependent upon transport vehicles that could not leave the roads. The tracked armored dog was being wagged by its wheeled tail.

The Allied Forces, enjoying freedom of the air, were able to make-do by such strenuous efforts as the Red Ball Express and so escaped some of the consequences of having grafted the legs of a dachshund on to the body of a bulldog. The war boomed on for many more months because the mobile fighting forces were tethered to the beachhead depots by supply elements that could be no more flexible than the road net.

OUR failure to develop full cross-country trafficability (and it was even then completely possible) has led to some serious misconceptions being incorporated into our postwar army. Among these none is of more fundamental importance than the perpetuation of our dependence upon wheels for supply. If there is one feature of the last war which has been forever swept away into history, it is those long convoys of wheeled vehicles jamming every road in France. If anything is certain in this uncertain world, it is the fact that certain defeat awaits the force that depends upon the 2½-ton truck for the movement of its armies.

The tremendous advantages we should gain if all the transport vehicles of the Army were tracked, surely must be apparent. Supply formations and units in transit could leave the roads and maneuver forward if the situation demanded, taking full advantage of the cover and concealment provided by the terrain, could even fight their way if necessary. Our ability to maintain units in the field would no longer be held to the capacity of the existing highway system. Streetcars have given way to buses in all urban communities because the old tramlines were not flexible enough to meet the demands of life in a modern city. The 2½-ton, 6 x 6, must also give way to a vehicle of more dependable cross-country traction. This is true not only because of the difficult supply problem but because we will not fight under 1944-45 conditions again.

The mass-destruction weapons and the many unique methods of delivering these weapons have placed the accent on protective dispersion. Large bodies of troops cannot now be shifted about as in the past. Probably our potential enemies would control the air (at least initially) and we should likewise meet them on the ground outnumbered and outgunned. We need not be dismayed by these facts for if we correctly estimate the present potentials we shall find the strength and the tactics to meet them. It is essential, though, that we recognize these truths and accept them and that we work out our blueprint for the future in terms of the probable conditions which will exist if war comes. Since we plainly cannot use our present overgrown divisions effectively while the enemy controls the air, we must work with smaller tactical units.

THE least alarming feature at this moment is the size of the armies that could be brought against us. For as a boxer finds excess weight a disadvantage, so an army finds mere numbers a handicap. This is particularly true today when large concentrations must be avoided, above all. I hazard the opinion that knowledge that his mass is no longer decisive, deters our potential enemy more than the fear of our new weapons.

If our army were organized into smaller combat groups and mounted in tracked vehicles for greater freedom of movement, it would be possible to practice the Liddell Hart theory of "fluidity of force" and "controlled dispersion." Not just a chain of strongpoints with a mobile reserve but a chain mail of completely mobile forces deployed in great depth. The separate units might, if the enemy attacked in force, hold their positions as islands of resistance, harassing the enemies' flanks and rear after being by-passed. The brave units that did this during the Germans' Ardennes offensive, though individually weak, caused the enemy to change the direction of his attack and by doing so to lose much momentum and the advantage his strategic surprise gave him. The Germans used the system to some extent in Russia and elsewhere so there is already a body of historical experience to form the basis of this technique.

Under certain other conditions the individual combat group might give up its strongpoint in the face of the enemy attack, allowing the enemy to strike a vacuum into which he would be sucked worthlessly. He then would be hit in the flanks of the created salient.

Such a mesh of strongpoints would offer an unremunerative target for costly weapons of destruction and yet it would be difficult for the enemy to overcome each individually. Protective dispersion on the ground must be combined with the capability for rapid maneuver and local concentration for offensive action, should the tactical and the air situation permit. This is a tailor-made role for armor. Such speedy, fluid movements are only possible in tracks.

To distribute mobile combat teams in such a fluid manner is opposite of dividing a tank company into platoons to support foot-powered infantry. Mr. Hanson W. Baldwin was pointing the way when he suggested that the "specialized divisions—infantry, armored, airborne—will tend to merge into combined arms combat teams, a variable number of which could be combined under a corps headquarters for tactical direction."

The logical sequence of events, the steady acceleration of transportation in our civilization, the gradual but constant evolution towards greater mobility—all suggest that the ground forces will eventually be organized into mounted combined arms teams of somewhat less than present division size. No branch will disappear, none will be subordinated, each will complement the other. If we can achieve this amalgamation we shall be able to prove that we have not yet begun to fight. The opportunities are enormous.

One by-product of this shrinkage of the size of the combat unit would be an economy of force, a saving in manpower that would partly redress the enemy preponderance of numbers. It should be unnecessary to hold out reserves at each echelon of command as insurance against calamity, for all units, mobile and deployed in depth, could be maneuvered on the field to meet the lunges of the foe or to capitalize on any local success we may obtain. Let our enemy attempt to use his masses and he becomes enmeshed in the loose net of our defense and a target for our "fantastic weapons." It is just such a concentration of force that represents the greatest danger in modern war. To force the enemy to mass will be the highest art of generalship.

THESE tactical ideas are practical with the vehicles we now have, with one hamstringing exception—the 6 x 6. It must be replaced by a tracked vehicle. If all our combat elements travel and fight in tracked vehicles and are employed in a fluid manner, it would be a compounded folly to attempt to supply

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them over the roads. The location, direction, capacity and extent of the road system in a given locality is very largely a matter of accident, and, while military operations have been largely contained and confined by existing roads, I submit that this is, or should be, no longer true. We cannot accept such arbitrary, circumstantial restrictions. To expand upon the mobility of railroads we added trucks, and since further expansion of our basic mobility is now a paramount necessity, we must get on tracks. Roads are dangerous for any military purpose. Experience indicates (though, perhaps we have not yet learned the lesson) that ground operations against a modern, well-equipped enemy are no longer possible without the flexibility of a tracked vehicle. It would be a mistake simply to modify the chassis of a tank for infantry and supply uses. What is needed is a lighter vehicle with carrying capacity, excellent cross-country characteristics, high ground clearance and low silhouette. Certainly our present transportation is not the best our mechanized society can do towards achieving the cross-country trafficability we must have. The development of a suitable logistical vehicle is fundamentally important to our national defense no matter where we eventually fight and it must be given the highest priority.

A great deal has been written about air supply. It is, of course, one possible alternative to overland logistics. It is not a cure-all. Air supply will always be dependent upon the establishment and maintenance of control of the air above the fighting front. Since this is assuredly problematical, so is air supply of tactical units. Our accomplishments in this field, like so many other pleasant but dangerous military habits we have formed, were only possible while the skies belonged to us. Furthermore, we must remember, weather is still an important factor in air operations.

Despite the serious imponderables that affect air supply, the new weapons that may appear may well force us to use it for long distance movement of supplies. Can anyone believe that those tremendous supply dumps and theater depots bulging with every conceivable commodity will again appear? No. They are too enticing a target. They were practical in Europe only because the German air power had been virtually destroyed before the land battle began. Today they are unthinkable. Some of them will, of course, simply go underground. But it stretches the imagination to think that atomic bomb-proof underground warehouses could be successively constructed behind the front as it moved forward. We might be forced to accept the insecurity of air supply to avoid other less desirable features of stockpiling in the traditional way. A system of air supply from underground bases in the zone of the interior direct to underground supply points in the field might evolve. Fighter aircraft operating from the bases in the theater of operations would rendezvous with the aerial convoy at the extreme range of the fighters and escort them to the supply points. The enemy would naturally attempt to disrupt these supply operations as often and as much as possible. His raids against our air convoys would correspond to the submarines the Germans used against Allied sea convoys. We defeated the submarine and we will have to meet and overcome the enemy's harassment from the air.

IF there is any glory in this profession of ours it should go to the soldier who meets the foe sustained only by his rifle and his guts. But the soldier's honor is in no way diminished by being transported in a tracked vehicle until his rifle and his guts can be effective. The cavalry fought mechanization long after its position became outdated. In the end there was little left of its argument except sentiment. In the present tendency to glorify the infantryman because he *walks* to his work there is a lot of sentiment, too. The practice of transporting infantry *on* tanks is an accepted technique of battle. It is a short step from riding on a tank to riding in an armored foxhole.

Between armor and infantry there should be no quarrel. Some of us in armor think that the addition of tanks to the infantry division was a mistake because it increased the size of an already overgrown organization, but we will be the first to hail it as the beginning of the merger of all arms. The development of self-propelled artillery is constantly progressing and many are convinced that it is the logical supporting weapon in this motor age. We await only the development of a dependable cross-country vehicle for the infantry and our supply elements so that we can get off the roads and fight. The increasing power of weapons and their ability to kill at a distance have constantly forced on us tactics that are more flexible, loose and open and entail more isolation of units and individuals. This has now reached the point that men must be mounted to achieve it.

This is no time for pessimism and branch patriotism. This is a time of dynamic change and great exploration. We are on the edge of vital development, and the mutation of the ground forces is going to be as decisive as any new weapon in the arsenal—in the long run, perhaps more so.

★ CEREBRATIONS ★

Our literate cocktail-hour tacticians stand to receive as much as $10.00 for their contributions to this department. However, the price for those "dashed off" with scant consideration for the rules of composition and rhetoric will be much less. Hold them to four or five hundred words and type them double-spaced.

Military Judges

General court-martial under the 1951 manual reduces the court itself to the status of a civilian jury with the important exception that the court, unlike a civilian jury, must sentence the accused if it finds him guilty. This makes careful selection of court members mandatory. Most of them are commissioned and many of them are very senior. Accordingly we find that an excessively large proportion of the time of many officers is taken up with courts where, as a captive audience, they sit silently and helplessly for long hours while the law officer, trial counsel and defense counsel argue loftily over fine points of the law.

It seems to me that having been driven this far from the old system—which had many merits, if some weaknesses—we should be better off if we went whole hog and had military judges to preside over all cases now coming to trial before general and special courts. Military judges should be chosen and appointed from capable senior colonels whose judicial appointment would be terminated only by retirement or for the convenience of the government. Judges so selected should be sent to school for a while—not to qualify them as full-fledged lawyers, but to enable them to preside over a general court-martial with the benefit of a law officer, and to conduct a special court without assistance.

The military judge should have the powers of sentence in a general court, and should perform in solitary legal grandeur all the duties now carried on by the *members* of a special court.

Such a system should have many advantages, the most important of which are these:

(1) Courts (juries) might be made smaller: perhaps six for a general, and of course none for a special court-martial.

(2) Courts (juries) might be composed of less senior officers and include, perhaps, fifty per cent noncommissioned officers. There would be no requirement that court members be senior to the accused—an awful nuisance.

(The net result of these two suggestions would be far less time spent on courts by line officers, who have much too much administrative work to do these days.)

(3) Justice should be more uniform and improper sentences very rare. After all, each finding and sentence would be made part of the judge's record, and if his record did not show good judgment, he could be fired.

(4) Court time should be lessened—after the general court (jury) brought in its findings, it could go home, thus eliminating the sometimes lengthy procedure of determining sentence.

(5) Justice should be somewhat more prompt, for smaller courts are more easily assembled.

I think this is a wonderful idea: Office of The Judge Advocate General please copy.

Brig. Gen. Hamilton H. Howze

Party Line?

The discretion observed by the well-mannered when using a party line in rural communities could well be extended to wire communication in combat areas. In most cases proper security measures are observed when radio is used to transmit messages. But how many of us consider a telephone conversation similarly subject to enemy interception?

Interviews with artillery and infantry communications officers who served in Korea during the period November 1950 to September 1952 reflect the probability that wire-tapping is one of the routine methods of intelligence gathering used by the enemy. Tapping occurred at various levels in our wire system, ranging from infantry combat outposts to corps artillery headquarters lines. The technique varied with the situation. A common practice was to splice into one of our lines and lead a wire into a nearby Korean house for listening. Other lines were monitored only during the night and with dawn the listeners found a safe refuge in which to rest for the next night's tapping. Three methods of tapping were reported: putting clips on our wire, tapping into a terminal box, and splicing into a line.



A corps artillery communications officer told of an incident in which he found Chinese issue field wire leading from a T-splice on one of his lines to the top of a nearby ridge. Litter found at the ridge position indicated that it had been occupied for several days. The officer then tapped wires in the same location and heard staff officers discussing future operations in clear text. The few wire tappers we have captured spoke fluent English.

Discovery of skinned wires and observation of temporarily lowered voltages are good indications that wire tapping is being conducted in the area.

Throughout history the outcome of battles has often been determined by complete and accurate intelligence. No one would *willingly* contribute to the success of the enemy's intelligence gathering agencies. Department of the Army directives state clearly that field wire circuits are not to be used for classified clear text messages except in emergencies. Only the commander may authorize such a transmission. Although all too rarely used, codes and ciphers are prescribed for use with the telephone. Think before you speak. The pictures adorning Stateside walls of the little men with big ears are more accurate than comical. Communications security is everyone's job every time he picks up a telephone.

Captain Cautious

Adjutants for the FA

During 1952 the Department of the Army published and distributed several new TO&Es. In general, these contained only minor changes that reflected current policies of the various arms and services with an over-all aim of making reductions in strength wherever possible without sacrificing efficiency.

One of the first of the new series to be distributed was 6-126, Headquarters & Headquarters Battery, Field Artillery Battalion (105mm howitzer, towed). Changes included reductions in orderlies and food service personnel which will not materially affect the functioning of the battery. However, the reductions

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also included the loss of one captain, the S1-Adjutant. The duties that were previously performed by this officer are to be handled by the battalion executive officer.

Field artillerymen reluctantly accepted the loss of the S1-Adjutant as a part of an Army-wide program to reduce manpower requirements. There were many skeptics among officers who had served in field artillery battalions during World War II and had faced the problem of operating an administrative headquarters without an authorized S1-Adjutant. They remembered that most battalion commanders found it necessary to detail some officer of the unit to act as S1-Adjutant if they expected to receive the normal assistance from their executive officer. Many battalions selected a liaison officer for this duty. This solution solved the administrative problem but created another—an untrained liaison officer and liaison section.

As subsequent TO&Es were received and checked (including the tables for other field artillery battalions that lost the S1-Adjutant) field artillerymen were surprised to note that antiaircraft artillery battalions, armored battalions, technical service units, and the infantry battalion, didn't lose their S1-Adjutant.

What is there about a field artillery battalion that makes it differ from all other units of battalion size; that allows it to function efficiently without an authorized S1-Adjutant? The answer seems to be that there is nothing peculiar about its organization that will permit the battalion executive to perform the duties of two staff officers. The most striking comparison might be made with the infantry battalion. The infantry battalion is an interior battalion and is not an administrative headquarters; yet there is an executive and an S1-Adjutant authorized for it. A similar comparison might be made in regard to the division artillery headquarters and headquarters battery TO&E. This unit is usually referred to as a tactical unit yet it has an authorized S1-Adjutant.

Aren't executive officer's duties very similar regardless of the type of unit? Obviously yes, except that in the field artillery the executive has more responsibility than he has in infantry or armored units because he has a more active role in the tactical displacement of his unit and has definite responsibility for coordinating the local security of the batteries of the battalion.

In garrison during the training period this problem can be solved by detailing some officer to perform the duty of S1-



Adjutant in addition to his regular duty. This means sacrificing the training of this officer in his table of organization duties. In the field there appears to be no solution. Each officer authorized by the TO&E has definite full-time duties. It is difficult to see how the battalion executive can satisfactorily perform his executive duties during combat and attempt to handle correspondence of the battalion, courts-martial proceedings, rotation and leave policies, and other miscellaneous S1-Adjutant functions.

There has been an increase in the amount of unit administration and this places an additional burden on field artillery battalion commanders. We have increased the responsibilities of the FA battalion commander and at the same time we have deprived him of the staff officer who could assume responsibility for certain administrative functions.

The TO&Es for field artillery battalions should be revised to include the authorization of the S1-Adjutant. The postwar conferences and studies on organization of the Army clearly indicated that the officer personnel authorized by the field artillery TO&Es published in the late 1940s were all justified. Nothing revealed in the Korean war indicates that the adjutant of the field artillery battalion is not needed.

COL. CHARLES W. HENRY
Artillery

Fire Support Coordination

How to coordinate all means of fire support at the regimental level has been debated for the past several years. Various solutions have been developed, tried, and accepted, but *the* solution will never be developed until the necessary personnel and equipment are furnished the fire support coordinator by TO&E rather than by improvisation.

Today's doctrine designates the direct-support artillery battalion commander as the regimental fire support coordinator. This is because the field artillery is now, and will be for years to come, the principal means of fire support for the regiment during normal ground operations. Currently the direct-support battalion commander must rob his battalion of valuable staff personnel to organize and operate the fire support coordination center when this installation is separated from the battalion fire direction center. Such action lowers the efficiency of the field artillery battalion and actually tends to slow up evaluation and attack of potential targets.

Why don't we give the regimental commander a permanent fire support section as a part of his own organization? This section should be headed by a field artillery officer (major, MOS 1193) trained for fire support coordination and assigned to the infantry regiment. His section should include an operations sergeant, a clerk-typist, and radio-telephone operators to man sufficient radio equipment for communication with all fire support agencies. Liaison officers from these fire support agencies would make up the rest of the fire support coordination center crew. These officers would take an active part in the evaluation of all targets and would also perform such additional duties as would be necessary for the smooth operation of the FSCC. In the field or in combat the FSCC would be located adjacent to the regimental operations and intelligence section or it would operate as a part of that section. As long as the artillery provides most of the fire support, the coordinator should be an artilleryman.

Another solution, more in line with the current doctrine, would be for the fire support coordination section to be an integral part of the FA direct support battalion. This would require that each direct support battalion's TO&E be increased to provide the necessary personnel and equipment. Even though they were assigned to the direct support battalion they would still operate at the CP of the supported infantry regiment.

The addition of the fire support coordination section would enable the artillery battalion commander to devote his time to commanding his battalion instead of coordinating regimental fire support as dictated by today's doctrine. The commander's leadership and experience are needed by his battalion. The infantry would be satisfied because the FSCC would always be located at the regimental CP. The artillery would be satisfied because artillery "know-how" would be used to coordinate all fire support agencies.

CAPT. ROBERT T. TOWNSEND
Artillery

FRONT AND CENTER

Lose anything in the last 13 years? If you did and if the government is responsible you have until 3 July to put in your claim. The Army announces that all personal property losses sustained since 7 December 1939 by soldiers or civilian employees of the Army must be submitted no later than that date, or within two years of the loss. If you put in a claim before 1952 that was turned down by the then existing statutes of limitations, you may be able to collect if you resubmit it. The law was amended last year. No matter what you claim you lost, even a gold brick, you can't collect more than $2,500.

✓ ✓ ✓

Some students of the Congress have believed that military service has a marked influence on a Congressman's approach to military and naval legislation, and if that is true these figures of the service of members of the present Senate and House may have some significance: 21 of the 96 members of the Senate have been officers in the service and 105 of the 435 members of the House. It figures out to about 24%. The breakdown by service shows:

	Senate	House
Army	10	47
Navy	5	42
Air Force	3	10
Marine Corps	3	6

✓ ✓ ✓

Army Field Forces is encouraging all Army commands to conduct annual rifle and pistol matches at which the best shots can be selected to compete for berths on the All-Army rifle and pistol squads. AFF suggests the program start at the platoon level and that battalion, regimental and divisional teams be formed for possible competition in the annual national championships. The 1953 national matches will be at Camp Perry, Ohio, and sponsored, as usual, by the National Rifle Association.

✓ ✓ ✓

Inconsistencies and inequities in laws that make it possible for the widows of reserve officers to receive total death benefits many times greater than those received by the widows of regular officers have been under study in the Pentagon and one plan for equilization has been worked out and may be submitted to Assistant Secretary of Defense Hannah for possible recommendation to Congress. This new plan would continue the six months' death gratuity but raise the minimum gratuity to $1,200 and lower the maximum to $3,000. At present the widow of a recruit receives $468 and the widow of a flying general with 30 years of service $6,857. Monthly benefits would be paid to a widow until she remarries or dies, based on the basic pay of her deceased husband. She would get 80% of the first $100 of pay plus 40% of the balance (minimum monthly payment would be $100). All members of the service would be put into Social Security. Finally, benefits under the Federal Employees Compensation Act would be discontinued. This is the area where widows of reservists are better off than the widows of regulars: reservists are under FECA while regulars are under the Veterans Administration.

✓ ✓ ✓

When you change your overseas World War II and Korea service bars to your right sleeve in conformance with the new directive, it's because G1, knowing it would have to do something to relieve the load on the left sleeve of master sergeants and sergeants first class, decided that was the best remedy. It could have devised a silver bar to replace say five of the gold bars or something of that order, but a look at the government's present inventory of gold bars made it decide to relieve the taxpayers of the cost of a new bar, and let the individual soldier hire a tailor—or do his own. World War I overseas bars are not affected because they are of the same design as wound stripes awarded in that war which are worn on the right sleeve. While World I wounded can substitute the Purple Heart for the wound stripe, many of them prefer the stripe and have never applied for the decoration. And the Department has never seen fit to direct that all World War I wounded turn in their wound stripes for the Purple Hearts.

✓ ✓ ✓

The glowing promises inherent in the postwar plans for Regular Army enlisted men failed to materialize through no fault of the Army command. Congressional and Budget Bureau restrictions on pay and promotion and the Korean conflict—largely the latter—are the cause of the alarming low rate of reenlistment of noncommissioned officers. Stabilized tours of duty, family housing, and the easing of promotion restrictions are probably the three most important improvements that can be made. The Army is making a serious effort to put them across.

✓ ✓ ✓

A bill to award every Medal of Honor winner with a life pension of $250 a month and a certificate which would show why the medal was awarded has been introduced in the Congress. It also provides for an "Armed Forces Medal of Honor Roll."

✓ ✓ ✓

The growth of Army Aviation can be discerned in the redesignation of the Air Training Department of the Artillery School, Fort Sill, to the Army Aviation School, although the official explanation is that it would "facilitate administration."

AAS will be supervised and directed by Army Field Forces, through the CG, Fourth Army. It will continue the work of the Artillery School's ATD in training officers and men of all branches in Army Aviation tactics and advanced flight training, including instrument flying. Basic technical training of both light plane and helicopter pilots is performed by the Air Force at its San Marcos, Texas, base.

✓ ✓ ✓

Little can be done under present laws to stop the making and selling of fraudulent service ribbons and other uniform gadgets being palmed off on U. S. soldiers returning from both the Far East and Europe, but the Army is warning its men that wearers of unauthorized ribbons or badges are liable to fines and jail sentences. Among the fraudulent ribbons are a NATO ribbon sold to men who have served in Europe, combat badges and shoulder cords for members of arms other than infantry and medics. The obvious corrective is the one the Army is taking: to instruct all men in what ribbons, badges and other devices they can wear, how they are earned, and their significance. Congress could help by making it illegal to manufacture or sell phony ribbons.

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FROM THE SCHOOLS

THE INFANTRY SCHOOL

Psychological Survey

A survey team headed by Dr. Richard Walk of the Human Resources Research Office, George Washington University, is studying the psychological causes of attrition among airborne students. The Human Resources Research Office, which is under contract to the Department of Army, also studies motivation, morale and leadership, training methods, and psychological warfare for the Army.

The group is testing the relationship between the different orientations given airborne students at the beginning of their course and the "washout" rate. Of particular interest to the researchers is the reaction of students to these different orientations.

Patterson Award

Second Lieutenant Herbert T. Perrin, Jr., who graduated from the Infantry Officer Candidate Course in May 1952, was the first winner of the Robert P. Patterson Memorial Award.

This award is given annually to the graduate of the Infantry OCS who distinguishes himself by demonstrating outstanding qualities of leadership, academic efficiency, aptitude and character while attending OCS.

The award honors the late Secretary of War, Robert P. Patterson, who won the DSC as an infantry captain in France in 1918. The award consists of an engraved trophy, scroll and cash.

Airborne Military Police

Fort Benning recently became the second post in the United Statees to have airborne military police. Some 45 paratroopers from the 508th Airborne Regimental Combat Team are on duty with the 3440th Military Police detachment.

Mine Warfare

Mine warfare instruction in all courses conducted at TIS will be increased in accordance with a recent OCAFF directive.

All courses at The Infantry School now include four hours of instruction on this subject. Under the new policy, the Infantry Officer Advanced course will include 2 hours; the Associate Infantry Officer Advanced course and the Infantry Intelligence & Reconnaissance Chiefs course will be increased to eight hours; and all Associate Infantry Company Officer, Infantry Officer Candidate School and noncommissioned officer courses will have 16 hours.

The additional instruction will stress the new policies governing mine warfare, the personnel authorized to lay mines, types of mine fields, and the correct techniques for marking, recording and reporting them.

THE ARTILLERY SCHOOL

Cartridge Case for 105mm How

A new cartridge case, called the spiral wrapped cartridge case, designed to replace the costly brass case now in use, has been developed by the Ordnance Corps for the 105mm howitzer.

The new case is formed by coiling a trapezoidal sheet of steel and holding it together by spot welding. The case is bolted to a steel base. When fired, the case expands against the wall of the chamber, breaking the spot welding and providing an effective gas seal.

The Department of Gunnery, TAS, has received nearly 10,000 rounds of ammunition, with the new case, for test. About half of this amount has been fired, and early reports indicate that its performance compares favorably with the brass case. There have been very few instances of the case sticking in the chamber after firing or of excessive gas leakage around the breech.

Publications

TM 6-200, Artillery Survey, a new technical manual covering the techniques of artillery survey, is now being prepared at TAS. It will deal with the survey of all artillery, including guided missiles.

The survey portion of **FM 6-40, Field Artillery Gunnery** is being eliminated in the revised manual presently under preparation by the Department of Training Publications and Aids.

Draft copies of revised **FM 6-20, Artillery Tactics and Technique,** have gone out to reviewing agencies. The revised manual contains detailed information on target intelligence and analysis. It covers doctrine on fire support coordination and the tactical employment of antiaircraft artillery in the combat zone in addition to revising material in the present manual.

Mine Warfare

Reports from Korea indicate that our troops are not sufficiently aware of the role of mine warfare, particularly in the offense. Accordingly TAS has incorporated instruction in mine warfare in all courses, both officer and enlisted. The instruction in mine warfare will be conducted jointly by the Departments of Matériel and Combined Arms, and will include familiarization with U. S. and foreign mines, tactical employment of mines, and clearing of enemy mine fields.

Foreign Armies

Recognizing that an officer is not fully prepared for combat unless he knows both his friends and foes, TAS is now giving a brief orientation course on foreign armies. All officers' courses include this training, with the amount and scope varying with the length and level of each course. In view of the brief time available, instruction is limited to salient points of organization, tactics, and technique, and emphasis is placed on those armies that officers are most likely to come in contact with in event of war.

Armored Artillery T/O&Es

A new series of T/O&Es covering armored artillery has been published recently. These tables superseded the old T/O&Es on 8 March 1953.

- 6-300 —Division Artillery, Armored Division (8 Sep 52)
- 6-301A—Headquarters and Headquarters Battery, Division Artillery, Armored Division (8 Sep 52)
- 6-315 —Field Artillery Battalion, 105mm Howitzer, Self-Propelled, Armored (8 Sep 52)
- 6-316 —Hq and Hq Battery, Field Artillery, 105mm Howitzer, Self-Propelled, Armored (8 Sep 52)
- 6-317 —FA Battery, 105mm Howitzer, Self-Propelled, Armored or Howitzer Company, Armored Cavalry Reconnaissance Battalion (8 Sep 52)
- 6-319 —Service Battery, FA Battalion, 105mm Howitzer and 155mm Howitzer, Self-Propelled, Armored (8 Sep 52)
- 6-325 —FA Battalion, 155mm Howitzer, Self-Propelled, Armored (8 Sep 52)
- 6-326 —Hq and Hq Battery, FA Battalion, 155mm Howitzer, Self-Propelled, Armored (8 Sep 52)

Dipstick Adjustment

In the December 1952 COMBAT FORCES JOURNAL it was indicated that the "dipstick" of the GMC 2½-ton truck M-135 was located in such a position that it could strike the battery terminal when withdrawn, causing a possible short circuit. The manufacturer has pointed out that the prescribed adjustment of the position of the engine oil dipstick guide tube will provide sufficient clearance to allow the engine oil dipstick to be removed from the engine without interference. The adjustment is made by loosening the retaining nut at the base of the guide tube, positioning the guide tube properly, and retightening the retaining nut.

★ BOOK REVIEWS ★

THE VANISHING FRONTIER CLOSES A GOLDEN AGE

THE GREAT FRONTIER. By Walter Prescott Webb. Houghton Mifflin Co., 1952. 434 Pages; Index; $5.00.

THE NEXT MILLION YEARS. By Charles Galton Darwin. Doubleday & Co., Inc., 1953. 210 Pages; Index; $2.75.

We Americans are proud of the democracy that we have achieved. We hail our standard of living as the highest on earth. We generously seek to export both democracy and wealth to help our allies. It rarely occurs to us to ask how we reached this point in human history or how much farther we shall be able to go. We fancy that progress is inevitable, that our own progress was due chiefly to our extraordinary merits as a people. These two books may cause us to revise our opinions.

These writings of an eminent American historians and a distinguished British physicist have this theme in common: Professor Webb and Sir Charles Darwin both look on the present as the end of an abnormal period of history. The professor from Texas holds that the influence of the great frontier, opened by Columbus and later explorers, has pervaded our modern culture and has been responsible for our great material prosperity and our democratic institutions. The more than four centuries since Columbus discovered America have seen the greatest boom in history. But since vacant land is no longer available and since we have consumed so much of our wealth, the end of the boom is in sight.

Similarly, the grandson of the author of *Origin of Species* believes that the recent centuries have been "the greatest of Golden Ages." He attributes this abnormal era of wealth and progress not only to the frontier but also to the scientific revolution that has enabled man to control Nature and modify his environment.

Both authors make bleak forecasts of things to come, but neither author is a defeatist. I like the way both suggest a constructive attitude toward their somber predictions. Professor Webb says:

> The question before us now is whether we can manage what we have so eagerly taken. That is our challenge and our opportunity. We should not be so obtuse as to believe that the means of management are the same as those of conquest, or that frontier institutions will necessarily serve a metropolitan society. Our challenge consists in finding out what modifications should be made, and our opportunity will come in making them.

Sir Charles, likewise, believes that by taking thought we can do something about the difficulties that lie ahead:

> If the world is inevitably to be so much more dreadful a place than current thought expects, would it not perhaps be better to forget the fact and simply go on hoping? I do not think so; if we are living in a fool's paradise, it is surely better to know the fact. But the matter goes further than this; for we certainly can do something to control the world around us, and if we can appreciate the limits of what is possible, we may have some hope of achieving our aims, whereas if our aims are outside possibility, then we are doomed to failure. Therefore it is a practically important thing to see clearly any laws which must set absolute limits to what it is possible to do.

Sir Charles bases his hypothesis on the physical and biological laws of Nature and reaches his conclusions not by the cause and effect relation, but by the laws of probability.

Professor Webb is deeply indebted to an earlier American historian who, three score years ago, enriched and stimulated American historical thought with a new hypothesis. Frederick Jackson Turner advanced the thesis that the frontier, more than any other influence, had shaped our civilization, and concluded his essay with these words: "And now, four centuries from the discovery of America, at the end of one hundred years of life under the Constitution, the frontier has gone, and with its going has closed the first period of American history."

While Turner was interested primarily in the influence of the American frontier on American history, he wrote that our Atlantic Coast was "the frontier of Europe in a very real sense." Professor Webb unfolds this thesis in fascinating detail and goes much further in the frontier theory than Turner. He examines the results of the discovery of North and South America, Australia, New Zealand, and South Africa. These new lands, sparsely populated and therefore available to the peoples of Western Europe, created a frontier for Western Europe that was in fact the greatest frontier in the history of the world. It determined the course of history and modified the institutions of modern Europe just as much as it shaped American history. The growing freedom of the individual in America from Old World traditions and restrictions inevitably influenced European thought and progress, but Professor Webb is chiefly concerned with what happened in American history, and what is likely to happen in the immediate future.

The result of this great increase in land and physical resources available to the Western World was a boom that has lasted for more than four hundred years, or as long as the frontier remained. The significance of this idea is tremendous. Professor Webb writes that:

> The boom hypothesis has implications that are far-reaching and important. It means that the modern age was an abnormal age, and not a progressive orderly development which mankind was destined to make anyway. It means that the institutions developed in this exceptional period are exceptional institutions, something out of the ordinary, and something quite different from what might be expected in the course of human affairs. They and their attendant ideas about human beings, government, and economics are very highly specialized to meet boom conditions, and may be expected to undergo much change when these conditions have passed away and history returns to normal. It is too early to guess what the changes will be, for the boom is not yet quite over everywhere, but the end of it is near enough to promote tendencies which give some hint of tomorrow.

The boom theory is easier to understand when we consider a few figures. The people of Western Europe in 1500 were so crowded that there were only "24 acres of land, good or bad, for each individual." The discovery of the Americas and other lands which Webb includes in the frontier suddenly made available to each individual 148 acres instead of 24. The boom continued as long as public lands could be distributed, but in the first quarter of this present century they practically disappeared. Furthermore, by 1930 the density of population throughout Western Europe and in the one-time frontier exceeded the density in Europe in 1500, and, so says Professor Webb, the Age of the Frontier is already over.

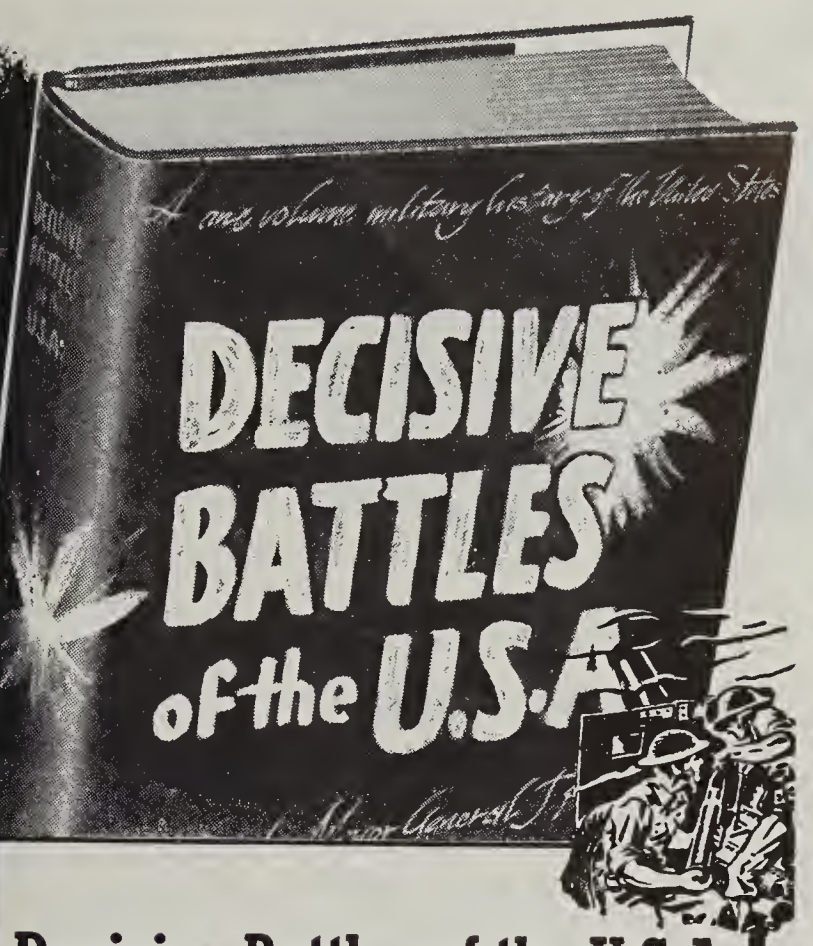
Is there any substitute for the former frontier in order that the boom may continue? The exploitation of the Amazon Valley and Africa offers serious obstacles that would have to be overcome at extremely high cost. The new frontiers of science and technology are often suggested as substitutes for the land frontier, but Professor Webb thinks their potential easily exaggerated. These are hard facts, but wisdom consists in recognizing the problems created by the end of the frontier and in acknowledging that the loose structure of frontier institutions and the ability to act on a highly individualistic basis are no longer appropriate today.

In 1500 the European world was corporate to a high degree. Although the individual triumphed in the frontier period, once more today—

> Corporateness has extended in every direction, into all forms of business, into the professions through associations, into churches, into amusements, into education. Its influence is today as pervasive in America as the frontier influence was a century ago. Corporateness is now the primary fact and the dominant force in modern life, and whatever men are to have of individualism, they must come at by making terms with a corporate world and not a frontier one. After all, corporations—I use the term broadly—are composed of human beings, and the question is whether they shall serve the individual or be served by him. The new individualism will arrive when corporateness comes to serve society rather than master, crowd and drive it.

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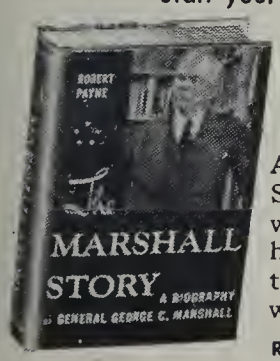
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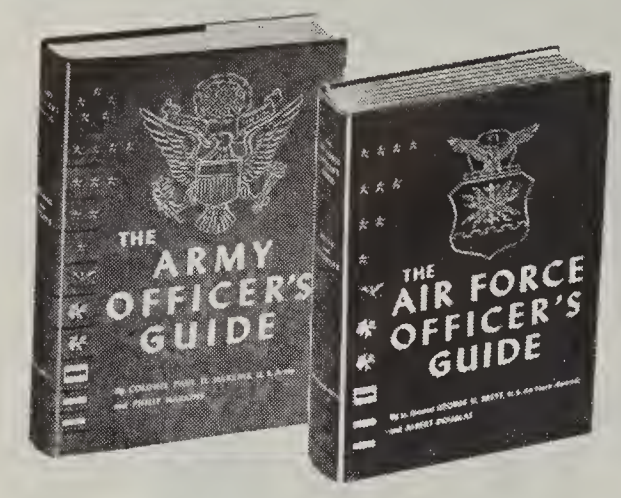
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Fortunately for this country, the American military man has invariably acted in accordance with Professor Webb's final sentence.

When Sir Charles Darwin considers the future of man for a million years, he does not take that period of time as merely a convenient round number. Geological evidence shows that it takes about a million years to make a new species of animal and that therefore human nature as we know it today must inevitably stay much the same for that length of time. But if human nature is not destined to change much, this is by no means true of the physical environment. The present age, according to Sir Charles, "has had an advantage never likely to be repeated, in that it started at a time when the civilized world had frontiers over which it could expand, and now it has abolished all frontiers by expanding over the whole earth." This statement shows how closely the basic concepts of Professor Webb and Sir Charles Darwin resemble each other. What are the consequences foreseen by Sir Charles?

Sir Charles is not concerned with questions of morals. As a matter of fact, he expects little moral improvement in man in the next million years, although he is fairly confident that man will become more intelligent. He believes we can face the difficult problems of the future with more assurance if we recognize the limitations of human beings and no longer struggle to achieve the impossible. To cite an example in the physical world, he points out that before the laws of thermo-dynamics were discovered, perpetual motion was thought to be a possibility in the design of machinery. In the physical world we now realize through these laws the limitations inherent in nature. Sir Charles would establish the laws of human thermodynamics, so as to determine the possibilities of the human animal, limited as he is by the laws of heredity. The scientific basis for his conclusions is the operation of the law of large numbers in connection with probabilities. This does not count out frequent and large variations from the normal, such as the present period in history, but the general average can nevertheless be predicted with considerable certainty when hundreds of millions of human beings through the ages to come are taken into consideration.

The author examines the implications of the ultimate end of the coal, oil, and mineral supply, especially the problems resulting from the total consumption of fuel. He emphasizes the pressure of increasing population on the means of subsistence with the certainty of famine for some portion of the world's population in the ages to come. He agrees with Professor Webb that since wealth and its wide distribution are a necessary condition for democracy, the world will see comparatively little democracy in the ages to come. He also thinks that some portion of humanity will probably continue to live in a state of slavery. In short, since we have expended the accumulated savings of hundreds of millions of years, there is no great future for our present standard of living. A permanent world government may be possible during the rare event of a world-wide Golden Age. But ordinarily political boundaries will still exist in the future to divide the world into a number of provinces.

What of the future of warfare? Apparently he has little faith in universal peace. Therefore, the first question he asks is, "whether the attack or the defense is likely to be the stronger, or, putting it figuratively, whether the cavalry or the infantry is to rule the battlefield." He points out that the superiority of the cavalry caused more than 500 years of barbarism in Europe after the fall of the Roman Empire. Organized armies and the invention of gunpowder revitalized the infantry, which once more became the dominant arm on the battlefield. He continues:

> In very recent times there has been a threat that once again the cavalry, in the form of the tank and the aeroplane, might become superior to the infantry. The danger is by no means over, but the experience of the recent war does suggest, rather contrary to expectations, that the infantry still reigns on the battlefield. However, there is a stronger reason which seems to safeguard the future of civilization from destruction by the cavalry. This is that it calls for a very high pitch of civilization to make a tank or an aeroplane. It is by no means unlikely that at some time or other one of the world's provinces may establish itself as a military autocracy and conquer the rest of the world, but to be successful it would have to be—and stay—at the peak of civilization. So it seems unlikely that, in the future, civilization will be directly destroyed by war, as it was in the Dark Ages.

We do not ordinarily associate the writings of physicists and historians with unlabored fluency of style and the felicitous phrase. Both books are written with unusual clarity and rare charm. Both required a high degree of courage to write, for their conclusions will not be palatable reading for the multitude. But they are unquestionably two of the most valuable contributions to the philosophy of history to appear in recent years.

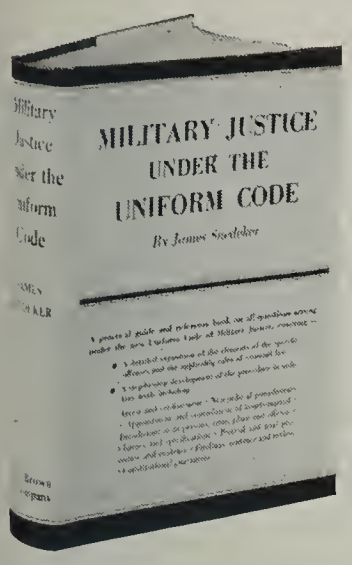
—Brig. Gen. Donald Armstrong.

ANOTHER ENGLISHMAN IS MISSING

STOLEN JOURNEY. By Oliver Philpot. E. P. Dutton & Co., Inc. 448 Pages; Illustrated; $4.50.

We need a book like this every so often to remind us that the British are wonderful people. This is another of the long series of British books on "How I Escaped from a Prisoner-of-War Camp," and as such is probably destined for a poor sale in the United States, but it brings back to the military reader the incredible belief of the British officer in himself and his country.

Philpot was an airman, shot down into the North Sea and "rescued" by the Germans. His travels from camp to camp, and his detailed explanations of the many



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by James Snedeker, Brigadier General, USMC, Retired

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The outstanding fact about this work is that it is the first exhaustive treatise on Military Justice since enactment of the new Code. Following the tradition established by *Winthrop, Military Law and Precedents,* originally a Little, Brown publication, this new book offers anyone concerned with the administration of Military Justice practical treatment of all questions through its—

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mes Snedeker has J.D. and S.J.D. de-ees from George Washington Law hool. He brings to his book a varied d practical experience in the adminis-tion of Military Justice in the Navy, luding six years in the office of the dge Advocate General, and he has th taught and written on the subject ce retirement.

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escape devices tried by himself and others make gruesome reading, even at this late date. His is probably the first of the books on the subject to offer much information about the extent to which escape "organizations" existed among the British. There were units to forge papers, to "procure" or convert civilian clothing, to distract the attention of the guards, and to perform other duties which would assist those with the courage and intelligence to try to escape. All these activities existed in the camps, right under the noses of the Germans.

Philpot himself escaped by means of the now-famous Wooden Horse trick, which was of course used only once. Several officers designed a wooden gymnasium horse which was carried out to the parade ground each day (with one or two men in it) and carried back each evening (with the men and the dirt they dug each day). The tunnel they dug went under the wire to freedom.

The British officer seems to take his obligation to escape from enemy prisons very seriously; it's a bit of indoctrination that should be added more forcibly to our own teachings. It does hinder the enemy by requiring more of his men for guard purposes.—A.S.

DE TASSIGNY'S STORY

THE HISTORY OF THE FRENCH FIRST ARMY. Marshal de Lattre de Tassigny. The Macmillan Company, 1952. 532 Pages; Illustrated; Maps; Index; $9.50.

In many ways this will be a curious book to the American reader because of its intensely personal tone. It is an extension of General de Lattre's personality just as his Army was, and both reveal a man of genius—and of a thousand contradictions.

The task he accomplished with the French First Army might well have crushed a lesser man. He had as a nucleus veteran colonial units which he assembled and trained in North Africa, and a tough, battle-hardened corps from Italy. Nearly all of these troops had been trained in the traditions of the regular service and were led by men who were products of that service This was the army Marshal de Lattre led into Southern France with conspicuous success.

To it he had to add over a hundred thousand veterans of the Resistance, young men who had learned soldiering in a different school of war and who were not accustomed to the more formal discipline of the conventional military unit. The integration had to be accomplished while some units of the army were actively fighting the enemy. Yet it was accomplished—not without friction—and the army continued to fight magnificently.

Add to this a cumbersome logistical setup, partly through French channels and partly through American channels, and the constant and often conflicting pressures which the Allied command and de Gaulle's government exerted on de Lattre, and you have a troop commander's nightmare.

But de Lattre guided his conduct on two primary loyalties—to his men and to France. For them he fought magnificently, against the Germans, and sometimes against his superiors. He was determined to help bring about the resurgence of French arms and he fought bitterly any move that might curb the effective fighting power of his army, for it and it alone represented the organized armed might of France. He did not always win his fight, but neither Sixth Army Group nor SHAEF were permitted any doubt of his point of view.

Marshal de Lattre had a deep and abiding affection for his men, an affection that illuminates every page of this book. To him, every man was important and he spared neither himself nor his commanders to see that no man was lost needlessly. This book, in fact, is a memorial to them.

Aside from the insight that he has given us into his own character, Marshal de Lattre has written an account that will serve historians well. It is an enormously detailed report on the organization, training and combat operations of the French First Army from the time of its organization for the landings in Southern France to final victory. It is very evidently the result of complete notes de Lattre must have made on the ground, augmented by exhaustive personnel research. We will look far before we find another book by an army commander which gives his decisions at all levels and the reasons for them together with an operational history at the battalion level.

This is particularly important because Marshal de Lattre and General Alexander Patch, commander of the Seventh Army, are both dead. This is, therefore, the only book we are going to get by a major commander in Sixth Army Group, unless General Devers should write his memoirs in the future. We are fortunate that Marshal de Lattre's skill with the pen and his passion for accuracy equal his ability with the sword.

It has long been this reviewer's opinion that the Seventh Army under General Patch and the First French Army under Marshal de Lattre were two of the most dependable and ably led formations of all the Allied armies in Europe. This history does much to provide documentary support of that belief—O.C.S.

BOOKS RECEIVED

CHARLOTTE'S WEB. By E. B. White; Pictures by Garth Williams. Harper & Brothers. 184 Pages; $2.50.

THE CARTOONS OF COBEAN. Selected and Arranged by Saul Steinberg. Harper & Brothers. 138 Pages; $3.95.

MAJOR FOREIGN POWERS, Revised Edition. By Gwendolen M. Carter, John C. Ranney, and John H. Herz. Harcourt, Brace and Company. 924 Pages; Maps and Charts; Index; $8.00. "A vastly informative and timely study of the present-day governments of Great Britain, France, the Soviet Union, and Germany."

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Off-Duty Reading

Two of Many Western German Minds

IT'S a good guess that there are almost as many shades of opinion about the United States among West Europeans as there are West Europeans. Two of these many shades are reflected—though to some extent incidentally—in new books by German authors.

Heinz Schaeffer, the author of *U-Boat 977* (Norton, $3.50), took his craft from Norwegian waters to the coast of Argentina after Germany's collapse. There he surrendered himself, his U-boat and his crew to Argentine authorities after a cruise that included a stretch of sixty-six days when *U977* was completely submerged. Schaeffer was in World War II all the way, and in submarines most of the time. He is one of the comparatively few survivors of Germany's submarine service. He writes well, and the simple facts of *U977's* operations against Allied shipping should stand for a long time as one of the best and most dramatic accounts of submarine warfare. We must certainly give Schaeffer a high mark as a naval writer. But of equal importance is Schaeffer's self-revelation. Here is a courageous, competent naval officer who performs a feat of seamanship perhaps unequalled in the annals of submarine warfare. And why? Because he felt that in Argentina he and his men would receive the courtesies proper to naval personnel surrendering their ship. The Allies, he felt, had become barbarians and were no longer capable of treating a defeated enemy with the consideration custom demanded.

IN Count Heinrich von Einsiedel, auther of *I Joined the Russians* (Yale, $4.00), we have an entirely different kind of man. Von Einsiedel was a Luftwaffe ace shot down over Stalingrad and taken prisoner by the Russians. When this happened he was twenty-one years old, and immature even for twenty-one. From here we can watch two developments: the Communist operation to split the captured German armies from both Hitler and the West through the Free Germany Committee, and Von Einsiedel's personal conflict as he is forced to choose between two authoritarian governments. This is a remarkable book both in its descriptions of the Russian handling of the German prisoners of war, and in the clarity and evident candor of the author's analysis of his conversion to Communism and his eventual withdrawal from it to a position of wary neutrality. Here, in short, is the development of a man from a boy—a man who embraced Communism because he felt it held some hope of saving Germany from Hitler's madness, worked for it in Germany after the war, and then got out after its excesses exceeded Hitler's own. But in getting out, Von Einsiedel has not run to the West with open arms either. Having been both a Nazi and an active Communist, he would very likely not be given a lavish welcome if he did, but he has misgivings of his own, based partly on what he sees of us and partly on a Hollywood conception of the American "culture."

HERE, then, are two exceptional books, one a vivid narrative of Germany's submarine war effort, the other one of the best personal accounts of the Communist organization of German prisoners of war and of German Communism in print today.

But perhaps more important, both books are singularly revealing of two states of mind among a certain number of Germans. How many Heinz Schaeffers are there who have gone off somewhere to sulk over the "death" of chivalry to the defeated enemy? How many Von Einsiedels have found nothing in the East or the West to sustain them? And of these, how many, like Von Einsiedel, are honestly and painfully trying to come to terms with themselves rather than waiting to see which way the cat jumps?

O.C.S.

FIRESIDE BOOK OF FAVORITE AMERICAN SONGS. Selected and Edited by Margaret Bradford Boni; Arranged for the Piano by Norman Lloyd. Illustrated by Aurelius Battaglia. Simon and Schuster. 360 Pages; Illustrated; Index; $5.00. A companion volume to the *Fireside Book of Folk Songs*.

PICTORIAL HISTORY OF AMERICAN SPORTS From Colonial Times to the Present. By John Durant and Otto Bettmann. A. S. Barnes & Company. 280 Pages; Illustrated; Index $10.00.

THE EAST-WEST BOOK OF RICE COOKERY. By Marian Tracy. The Viking Press, Inc. 148 Pages; Illustrated; Index; $2.95. As food prices go up, rice cookery becomes more popular. This book contains many tasty and exotic recipes.

THE WORLD'S GREATEST BOXING STORIES. Edited, with an introduction by Harold U. Ribalow. Twayne Publishers. 309 Pages; $2.95.

ATOMIC EXPERIMENTS FOR BOYS. By Raymond F. Yates. Harper & Brothers. 132 Pages; Illustrated; $2.50.

HUNTER. By J. A. Hunter. Harper & Brothers. 263 Pages; Illustrated; $3.50.

GUYS ON ICE. By Lyman R. Ellsworth. David McKay Company, Inc. 277 Pages; $3.00. Soldiers in the Pribilofs throughout the polar winter.

DEVELOPMENT OF THE GUIDED MISSILE. By Kenneth W. Gatland. Philosophical Library. 133 Pages; Illustrated; Index; $3.75.

SIX WAYS TO RETIRE. By Paul W. Boynton. Harper & Brothers. 145 Pages; Index; $2.50.

A HISTORY OF THE CRUSADES, Vol. II, The Kingdom of Jerusalem and the Frankish East, 1100-1187. By Steven Runciman. Cambridge University Press. 523 Pages; Index; $7.50.

PARLIAMENTARY LAW FOR THE LAYMAN. By Joseph F. O'Brien. Harper & Brothers. 248 Pages; Illustrated; Index; $3.75.

THE FORGOTTEN REPUBLICS. By Clarence A. Manning. Philosophical Library. 264 Pages; Index; $2.75. Estonia, Latvia, Lithuania and the rights of small nations.

EAST OF EDEN. By John Steinbeck. The Viking Press, Inc. 602 Pages; $4.50. Steinbeck's novel which covers the period from the Civil War to World War I.

THE WORLD OF NATURAL HISTORY. By John Richard Saunders. Sheridan House. 321 Pages; Illustrated; Index; $5.00. A panorama of the American Museum of Natural History.

THE STORY OF TREES. By Ferdinand C. Lane. Doubleday & Company. 384 Pages; Illustrated; Index; $5.00.

GHOULIE: Train-Bridge. By Philip M. Wertheimer. Sterling Publishing Co., Inc. 63 Pages; Index; $1.00.

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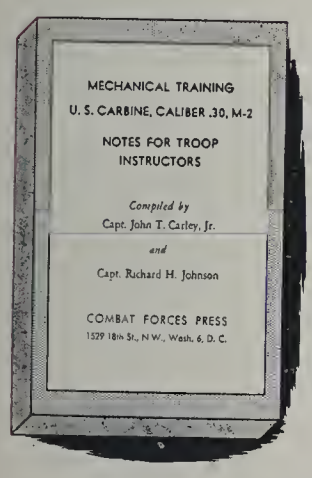
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TECHNIQUE FOR ADJUTANTS

BY MAJOR ARTHUR M. CHESTER

Smooth functioning of the administrative office generally receives little praise. But let things get out of whack and the roof falls in. No adjutant can afford to let this happen. Confusing as the "paper-work" is at first, it must be done. Here is a complete guide that shows the inside picture and how to work it through. It outlines the responsibilities of the job, whether it be on the battalion, regimental, divisional, or post level; gives: techniques, hints on management, ideas for organizing work, and best of all, ready reference points for a series of several hundred questions asked in the filling out of the necessary forms and reports on inspections, publications, supplies and personnel records.

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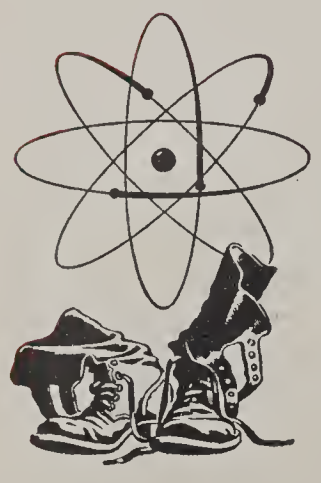
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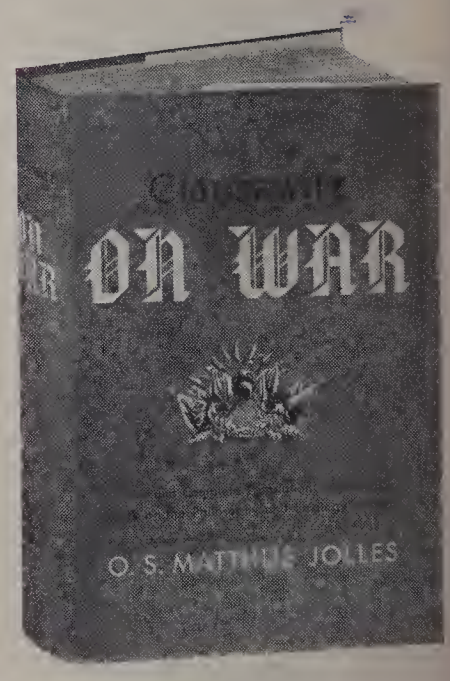
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TRANSLATED BY O. S. MATTHIJS JOLLES



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Who's Pushing?

These are not questions for me to answer. I happen to be sitting in this chair. You have directed to me many questions today that, if I were not here, you would not have . . . thought of asking them of me.—General J. Lawton Collins

IN the course of the ammunition shortage investigation by the Senate Armed Services Committee, Senator Knowland of California put a long and involved question to General J. Lawton Collins that in effect asked him if he didn't think Congress should be informed when civilian heads of the defense agencies overrule military chiefs and ask for smaller appropriations than the uniformed men think is necessary.

In his reply General Collins carefully pointed out that as Chief of Staff of the Army he was responsible to the Secretary of the Army and as a member of the Joint Chiefs he was responsible to the Secretary of Defense and the President.

"That is what the laws says," General Collins continued, "and if you are going to have some order and teamwork in Government, we must play our part under the assumption to which I thoroughly subscribe, that the military leaders must be subject to and operate under civilian heads of the Government as prescribed by law. There are other factors besides military considerations that determine whether you should appropriate this, that or other things, or whether the Bureau of the Budget will permit us, to ask you to appropriate."

General Collins made this point even clearer in answering other questions. The following from the record shows that he was reluctant to answer questions that more properly should have been addressed to his superiors.

Senator Symington. I think what Senator Byrd would like to know is whether or not the Department of Defense approved the request made by the Bureau of the Budget of the Congress, it was what you and what the Army felt was adequate from the standpoint of your ammunition.

General Collins. You are putting me in a difficult position, Senator, to answer that, because of the fact that as Chief of Staff of the Army I do not submit the budgets.

I have a certain part to play in their production and in their presentation, but the matter of what is approved and what is not approved within the Department of Defense in my opinion should be asked of an official of the Department of Defense, and not a military man, under our system of government.

Senator Symington. I think you know me well enough to know I was not trying to put you in a difficult position.

* * *

General Collins. Yes, sir. The only point I make is that if the committee desires to get into these aspects of the problem, they are not questions that I should be called upon to answer. If the chairman directs me to answer, I will answer them.

* * *

General Collins. Senator, . . . The only point I am making is that the Department of the Army must comply with the laws of the Congress. It must comply with the directives that it receives.

Unless you want to change the system, you cannot hold a military man responsible for changing your directives or the directives that come down to him from superior authority.

* * *

General Collins. . . . What you are doing, Senator, now is asking me just the same as the Supreme Court has frequently refused to answer: what would have happened had such and such been the case. I don't know, and I am not a lawyer, but I will say this: that if you want that answered, I am not the man to answer it.

* * *

Senator Byrd. At least you make recommendations, don't you, General, on the part of the Army?

General Collins. Yes, sir; but I make my recommendations by law to the Secretary of the Army. That is the man I make my recommendation to, as stipulated in the law passed by Congress. I make them to the Secretary of the Army.

* * *

General Collins. But the recommendation you see that is sent in to the Secretary, Mr. Byrd, is not the recommendation of the Chief of the Staff of the Army necessarily. Under our system of government I believe in the subordination of the military to the civilian authorities in the Department.

The man that is responsible so far as the Department of the Army is concerned for the final recommendations that go in, is the Secretary of the Army. He receives recommendations from me and from his Assistant Secretaries. We made those recommendations, but the decision as to what was asked for is not the decision of the Chief of Staff of the Army or any man in uniform in the Army.

* * *

General Collins. . . . I made my recommendation on the recommendation of the staff and the analysis and the recommendation of the theater commanders, and it was more than what was finally asked of the Congress. You forced me to say that. I say that reluctantly. I did not volunteer it.

THERE were other questions of the same nature and each time General Collins was careful to emphasize his subordinate position. Indeed at one place Secretary of the Army Stevens intervened to observe that the record clearly showed that General Collins had recommended larger amounts of ammunition than had been approved. "I would like to take this opportunity," said the new Army Secretary, "of paying my own tribute to General Collins for having had the foresight to estimate the situation the way he did."

And in another place Senator Symington (formerly Secretary of the Air Force) observed that he knew from experience "that nobody tried harder to prevent the Army from being cut to pieces" than General Collins. He recalled that just six weeks before Korea General Collins had "told high authority this was the last time he would ever approve a further reduction in power of the Army as long as he was Chief of Staff." But the important points are not that General Collins deserved praise either for his foresight or his loyalty to the Army. The important points are that while General Collins was scrupulously observing the legal and traditional role of the soldier in our form of government, some Senators were asking him questions that, if he answered directly and to the point, would constitute a violation of the proprieties.

We read more than occasionally that the "brass" is taking over the Pentagon if not the country itself. Yet, we would ask, who observes the forms and the spirit of our laws and customs more diligently than the men in uniform?

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But what if by air?

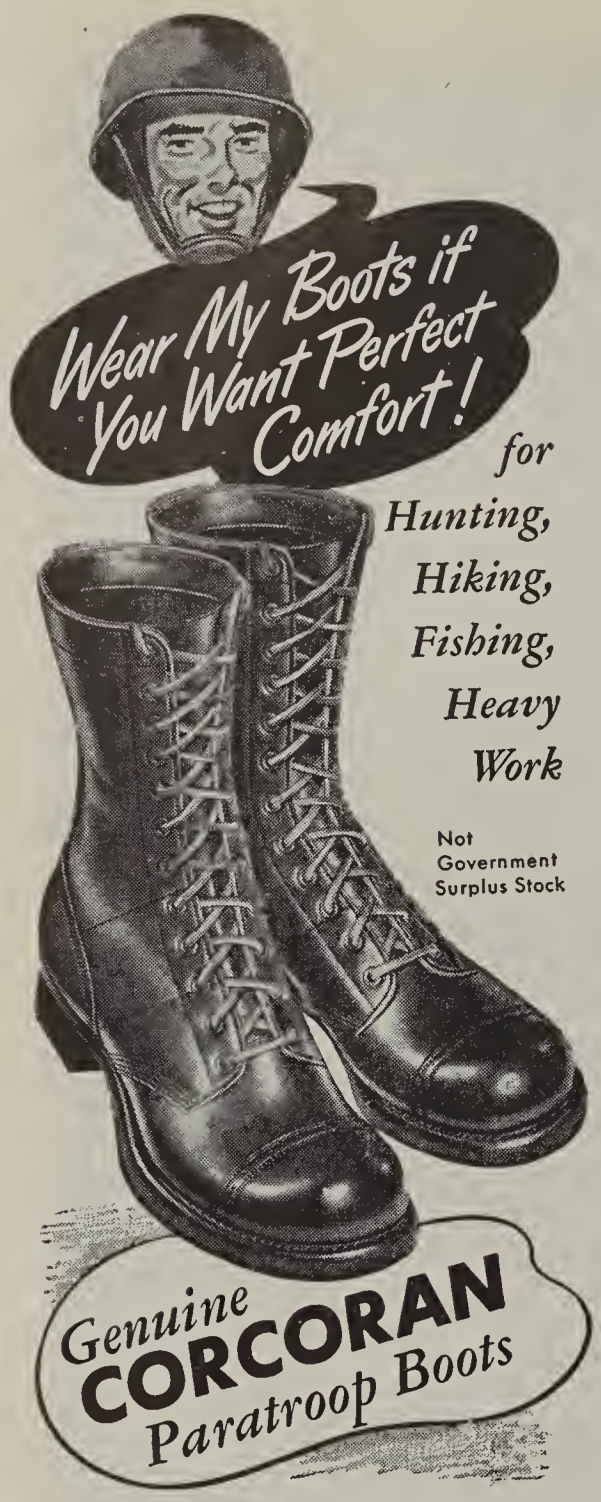
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★ To the Editors . . . ★

Grateful Author

To the Editors:

In the treatment and layout of my article, "Stress the Fundamentals," THE COMBAT FORCES JOURNAL did an outstanding job. Your striking use of color, and the attractive arrangement of maps and photographs gave the article unusual eye appeal, and I feel that you are responsible to a large degree for the rapid and wide dissemination of my ideas on this vital subject.

Now that I have had the opportunity to study and evaluate the reaction to this article, I wish to commend you and your staff for your excellent presentation of the material. I also wish to congratulate you on the size and range of your audience, for the many comments I have received are a good indication that COMBAT FORCES JOURNAL is read with great interest and attention by all ranks of the Army and by many others as well.

Please accept my sincere thanks for your fine cooperation, and may I also take this opportunity to wish you and your staff the best of success in the future.

J. LAWTON COLLINS
Office of the Chief of Staff
U. S. Army
Washington 25, D. C.

• The Editors are grateful to the Chief of Staff for his kind and thoughtful letter. As a long-ago contributor to the *Infantry Journal* and as a former President of the Infantry Association, General Collins knows that these columns are open to him whenever he has something to say to the troops. We do want to say here that there have been more requests for permission to reprint "Stress the Fundamentals" than any other article in the memory of the staff. In every case permission has been granted and we can only say we regret it was impossible to reprint thousands of copies of the article for free distribution.

Yeah?

To the Editors:

I don't want to intrude, but since some of our top brass have been given rather important civilian jobs lately, nothing is said any more about the "Military Mind."

MAJ. W. E. ROSEBUSH
411 E. Washington St.
Appleton, Wisconsin

• Don't kid yourself . . . or us.

Intelligence Failures

To the Editors:

Kudos to Hanson Baldwin for "Battlefield Intelligence" (CFJ February 1953). It is this type of military historical research, done with the objectivity of one who has no axe to grind, that gives encouragement to the hope that eventually we may derive maximum profit from a study of the past.

We have heard charges, countercharges and explanations, hurled relative to an alleged similar intelligence failure in Korea relating to the Chinese intervention. Perhaps Mr. Baldwin, having shed some light on the intelligence failures of the Battle of the Bulge, will someday favor us with a study of this new intelligence failure, if failure it was. It is hoped that we won't have to wait another nine years after the action to learn what, if any, our intelligence mistakes were in Korea or whether or not in 1950 we made the same mistakes as in 1944.

Give us more articles of this caliber and more articles by Mr. Baldwin.

LT. COL. F. B. NIHART
USMC
1st Bn, 4th Marines
3d Marine Division FMF
Camp Pendleton, Cal.

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Back Issues of IJ

To the Editors:

I would appreciate hearing from any reader who can tell me where I might be able to obtain any copies of *The Infantry Journal*, years 1930 thru 1940. Information on even one copy will be appreciated.

W. F. Coffey

Box 2424
Hickory, N. C.

* * *

Another Bobble

To the Editors:

The artillery has always known that the infantry doesn't know which end the hoot comes from in motor transportation but when infantry officers don't know the difference between a jeep and a ¾-ton it reaches some sort of high. See page 30, March issue. Please pardon me for saying that they don't know their jeep from a hole in the ground.

Don't take the blame for this one, editors. You are excused for that 155 how cover. But someone should take the rap for this last bobble.

Lt. Col. A. L. Fitzsimmons
Artillery

APO 957, c/o PM
San Francisco, Cal.

• Misery loves company; catastrophe comes in pairs . . . explain it as you will, but this latest bobble was made by the same editor who made the one on the 155 howitzer cover of the February issue. We can't blame the two infantry officers of the article for they never saw the picture (so far as we know) until the magazine came out.

Stilwellian Prose

To the Editors:

I thought the March cover unusual from a production viewpoint, and highly pleasing to the eye. Very effective job.

As always, I find "To the Editors . . ." a most deadly pitfall to one's plans to get to bed early. Before sacking in last night I had to digest each communiqué closely.

Liked very much the retort of "Major Infantry, RA" to the equally well-put plaint of "SFC Armored Infantry." Just one (small) point on this letter, though . . .

The Major quotes the colorful dog-Latin "motto" that General Joseph W. Stilwell liked so well, as *Illegitimi nil carborundum*. Vinegar Joe's wording, I believe, went as follows: *Illegitimati non Carborundum.*

Translated, this is supposed to mean something like, "Don't let the Bastards grind you down."

Bruce Jacobs

270 Park Avenue
New York 17, N. Y.

Expedients and Ordnance

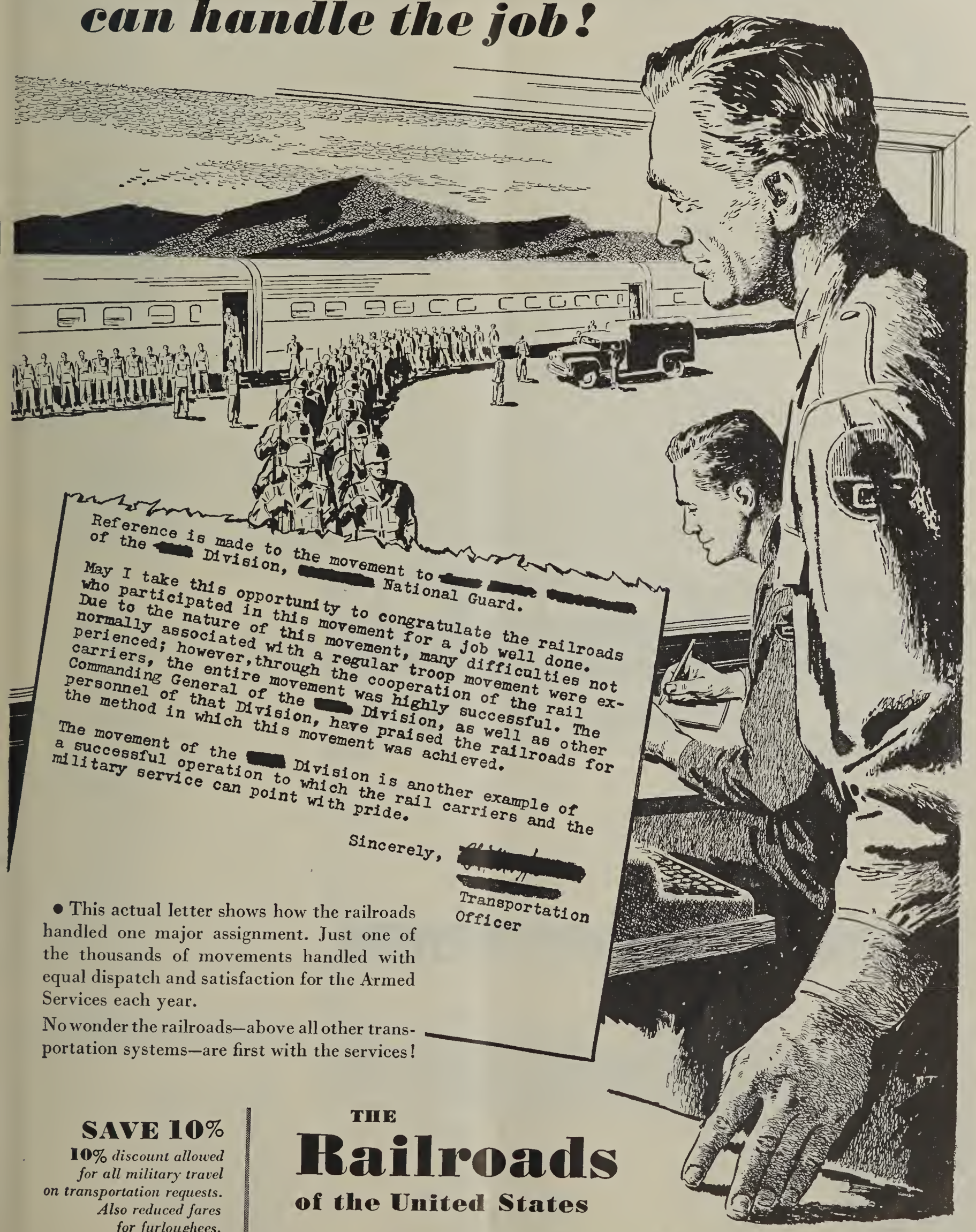
To the Editors:

It may be heresy for you to read this letter, for I am neither artillery nor infantry, but ordnance. Nevertheless I have enjoyed reading your magazine for nearly a

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Reference is made to the movement to [redacted] of the [redacted] Division, [redacted] National Guard.

May I take this opportunity to congratulate the railroads who participated in this movement for a job well done. Due to the nature of this movement, many difficulties not normally associated with a regular troop movement were experienced; however, through the cooperation of the rail carriers, the entire movement was highly successful. The Commanding General of the [redacted] Division, as well as other personnel of that Division, have praised the railroads for the method in which this movement was achieved.

The movement of the [redacted] Division is another example of a successful operation to which the rail carriers and the military service can point with pride.

Sincerely,

[redacted]
Transportation Officer

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year now. I have contented myself with digging into each issue and approving or disapproving the theses set forth by your authors. Your March issue, however, struck so near home that I am forced to reply to an article contained in it.

That issue concentrated on an evaluation of motor vehicles and the combat soldier. The procurement, supply and maintenance of vehicles and their parts come under the mission assigned to the Ordnance Corps. Thus, I found myself reading with particular zeal these articles written by members of the combat arms. Much to my disappointment, I found reference to the Ordnance Corps and the aid they can give the using units, in addition to their scheduled maintenance and supply obligations, no more than a half dozen times. Considering that there were over forty printed pages dwelling on motor vehicles, their maintenance and supply, I feel that the role of Ordnance as a valuable aid to using units should be emphasized a great deal more.

Ordnance should not be overlooked when there are supply and maintenance problems to be solved by the using arms—especially in the area of field expedients. We are much more than a schedule, a technical manual or a critical group of mechanics and record keepers.

SR 750-105-10, dated 18 February 1952, established and set up the procedures for Ordnance instructor-inspector teams. These teams are designed to iron out supply difficulties, expedite emergency repairs, transmit data on field expedients, and generally lessen the supply and maintenance enigmas that may plague your units in the field.

"So what!" you say, "you've heard of them before. . . . Combat makes greater demands and eliminates the flexibility of these items." On the contrary. Under the new tables of organization for the ordnance battalion, infantry division (T/O&E 9-25) Ordnance will be up front! Division ordnance platoons will be attached to your regiments. They will physically contact elements of your command and be constantly available to help you resolve problems of supply and maintenance. They are ready and eager to give you assistance in hurdling problems that cripple your mobility or firepower, especially in the line of field expedients. Why not consider the role of Ordnance in this light more carefully?

Captain Lawrence W. Fite in his article on field expedients enumerated several excellent methods to "keep 'em rolling." But he ignores the help of Ordnance teams in solving these maintenance and supply problems. By emphasizing, "The more you do for yourself, the less the supporting services have to do for you," Captain Fite has set forth an admirable thesis. I only ask that you temper this principle with considerations of the effect it may have if it becomes distorted and overemphasized. Failure to check with Ordnance for information on expedients may lead to a much bigger problem in the long run. A vehicle abused by "improper" expedients may suffer complete rebuild instead of third echelon maintenance.

In other words, gentlemen, don't try to do "it" all by yourself. You are not always in a position to see the effect an expedient may have on the serviceable life of a vehicle . . . or a weapon for that fact. Ordnance is better equipped in skill, tools and experience, to give you a "best" expedient in almost any situation.

The intent of this letter is to dispel any gray-haired concepts that Ordnance is nothing more than a schedule for maintenance or a used car lot where a worn vehicle is traded for a serviceable one. If we haven't already contacted you, let us know what's wrong. Only in that manner can we become completely aware of your supply and maintenance problems. A telephone call may bring an augmenting force designed to correct difficulties and provide repairs and supplies for your vehicles and instruction for your motor men. Think of Ordnance when you think of vehicles and expedients.

Lt. David H. Gilbert
The Ordnance School
Aberdeen Proving Ground, Md.

● The Editors thank Lt. Gilbert for his clear and needed reminder of Ordnance's role.

Regimental Spirit

To the Editors:

Enclosed is my check for five dollars and your familiar blue slip making me good for another year.

I don't believe I've ever written you to express my opinion of The Journal. To me it is the finest magazine of its kind I have ever seen. I wouldn't be without it. To an old soldier like me it keeps one well informed as to what is going on in the military world. I must admit I let myself get disturbed sometimes over some of the articles I read such as "What's Wrong With the Infantry." I'm afraid I agree with most of that particular article. One thing rather puzzles me, however, and that is, don't soldiers speak in terms of regiments any more?

As an example, the other day I met a soldier on the street wearing regimental insignia, or as it used to be called, a regimental crest. Being curious I asked him what regiment it represented and he didn't seem to know. There was a time when no matter what regiment you belonged to it was the "Best damn regiment in the Army." Today there doesn't seem to be that old regimental spirit.

One reason for this is, I am sure (and I have said this before), the lack of a regimental band. When they did away with the bands in the various regiments, I think

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they did away with half of the regimental spirit. I'm sort of hoping Ike may change this. He should know the value of music as a morale builder. Martial music is a morale builder in service and out. Let's get 'em back.

Well, I guess I've sounded off enough on this particular subject but I wonder if there are others who feel as I do.

CAPT. K. F. BOWEN
920 Potomac Ave.
Erie, Pa.

Junior Officers

To the Editors:

The dilution of quality caused by the expansion of the officer corps and the emphasis that has been placed on persuasive leadership in our Army have resulted in intemperate criticism being leveled at company grade officers.

Almost any complaint directed against junior officers receives immediate attention and widespread publicity. Your recent publication of the article "What's Wrong With the Infantry?" is one example of this deplorable state of affairs.

It is quite true that young officers need guidance and that our ranks contain many with undesirably low standards. I maintain that this situation can best be dealt with by glowing examples of dedication on the part of our senior officers and by a militant application of the reclassification system.

The publication of irresponsible criticism by an influential magazine such as the COMBAT FORCES JOURNAL results in demoralization of the officer corps and further weakening of the precarious state of discipline in our Army. I would be interested in hearing your reaction to these thoughts.

LT. HUBERT M. NICHOLSON, JR.
Artillery
Battery A, 33d FA Bn
APO 1, c/o PM
New York, New York

● We felt that the sergeant who criticized junior officers was overdoing it more than a little bit. But if a seasoned sergeant believes so deeply and earnestly that our junior officers are not all what they should be, should not his voice be heard so that his misconceptions may be corrected? We think the answer is yes, for if one sergeant believes this, so do others and indeed we have heard soldiers of all ranks say the same thing in the last few years. We would like to have concrete evidence in one case that the Sergeant's effusions about junior officers have resulted in a case of "weakened" discipline. We cast no reflections but we believe that every good junior officer will have such a hold on his men that they laugh off and disregard the criticism of the Sergeant and where (if there be) a junior officer such as the Sergeant described, discipline is probably so low already that what the Sergeant had to say could not make matters worse. And might make them better if the junior officer read it and took it to heart. Finally, let us make it clear that the staff thinks the junior officers in today's Army are every bit as intelligent, aggressive, and professionally skilled as the junior officers of any generation since 1776.

Spice not Manualese

To the Editors:

Read your current issue and found Lt Col. Waldon C. Winston, and his article "Mobile Maintenance Made 'Em Roll," interesting and easy enough to understand.

Currently in Korea, the big spring thaw is probably giving everyone a hard time. In the other articles on types of transportation, only the types of transportation were covered, not drawbacks, not grinding hills, not extreme weather, extreme terrain conditions, not mud, ice, and mainly not a drop on the subject of maintenance, only figures, charts, and how the truck, jeep, tank, dozers, graders, and so forth, look, act, and what not, to conditions of combat or training, not to the sense that they need repair or parts, or main points that were covered in Colonel Winston's article.

Sure I can see putting some of these things into your magazine to add spice, but too much spice can ruin a good magazine.

Manuals are cut-and-dried. They have information needed only for reference. A reader such as I am, hasn't much time for trivialities, nor do I understand these trivialities, and thus I use only in your magazine what I understand, and understanding a magazine, and understanding a manual are two horses of different colors.

You can't satisfy everyone, but you can satisfy the majority. And it is my understanding that privates, corporals, and sergeants compose most of the Army, and to them your magazine serves its purpose, to keep them up to date, yet not behind because they can't understand, or they haven't time to go into the manual-like explanations.

I know that the manual has its place, but if the Army ran on the manuals it wouldn't be much of an Army. The higher the points of meaning to the soldier are placed, the more regard he has for his noncoms, his officers, his job. And that goes for the magazine as well. Your magazine is good . . . but.

It is not my intention to run a magazine, nor choose articles. I can suggest as your magazine suggests, and that is what I'm doing. I mean no offense, all I want is a magazine, not a manual.

I hope that is your purpose.

PFC JOHN HAMMERSLEY
Hq & 10th Trng Co.
3d Bn ERTC
Fort Belvoir, Va.

● It is, Private Hammersley, and we will keep a firm hand on the chart addicts from now on. Some will appear but they won't be charts that you'll find in the manuals. The Editors are proud that they have never picked out an "average" reader of CFJ—general, lieutenant colonel, lieutenant, sergeant or private. We try to interest and inform the thoughtful and appeal to the professional interest of all ranks and grades.

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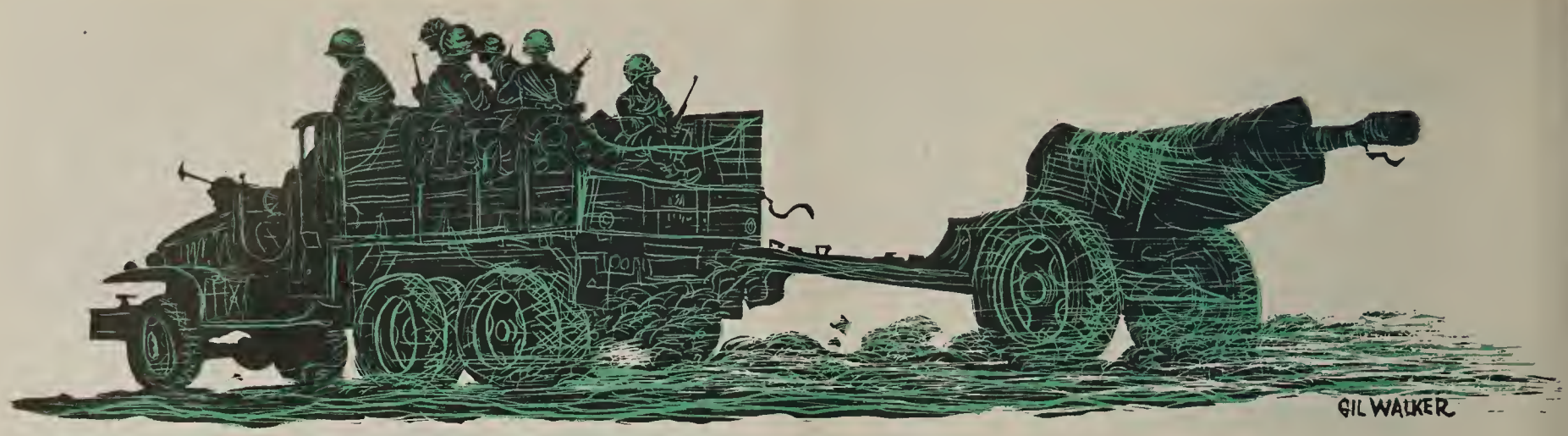
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They Fought To Save Their

Colonel S. L. A. Marshall

WHEN the sun set on 30 November 1950, not one howitzer had gone through The Pass. Most of the infantry had either cleared the barrier or had moved to within seeing distance of it. But the artillery column was strung out all the way from the approach to the final ridge back to the jump-off area where, for lack of road space, some of its elements had not yet formed in procession.

Thus in the unforeseen situation, the artillery became the 2d Division's rearguard, having to repel infantry boarders, and doing it in the dark. It had some infantry help, elements of 3d Battalion, 38th Infantry, which for lack of transport hadn't gone out with the rest of the regiment.

So it became the story of the fight of artillerymen to save their guns from the Chinese howling down the slopes of the ridges on both sides of the pass. Four elements of U. S. artillery were involved: the heavy 8-inch howitzers of the 17th Field Artillery Battalion, the medium 155s of the 503d Field Artillery Battalion, the 105s of the 37th and 38th FA battalions, and the quad .50s and 40mm guns of the 82d Antiaircraft Artillery Battalion.

The artillery tail of the column had to meet special hazards beyond what the lead parts of the column had experienced. Destroyed and burning vehicles lit up the night sky and the artillery had to make a swing-out in the darkness to skirt these fiery blocks in the dirt road. There were ditches on both sides and every swerve made by a truck or gun helped to break down the thin supporting crust of earth, increasing the likeli-

> . . . In our operations over thirty-five years, I have known of no braver episode than the fight by which the field and antiaircraft artillery elements of 2d Infantry Division—aided by a handful of infantry—broke out of Kunuri Gauntlet.
>
> S. L. A. MARSHALL
> 13 March 1953

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COLONEL S. L. A. MARSHALL, USAR (he is a brigadier general in the Michigan Civil Defense organization) needs no introduction to the regular readers of COMBAT FORCES JOURNAL. He gets his facts from the battlefield — and he has been on all of them since 1918, when he was the youngest second lieutenant in the AEF. In World War II he served in both the Pacific and European theaters and he spent several months in Korea in 1950-51. In civilian life he is an editorial writer for the *Detroit News*. His books include: *Blitzkrieg, Armies on Wheels, Bastogne, Island Victory, Men Against Fire* and *The Mobility of the Soldier*. This article is arranged from a chapter of *The River and the Gauntlet*, to be published this month.



MARSHALL

Guns

hood that the vehicles which came later would slip, go off balance, and either overturn or become wedged sideways in the ditch. Out of this hazard came the great part of the loss which followed. Artillerymen have a love for their guns which is perhaps stronger than the feeling of any other soldier for his weapon or any part of his equipment. That guns will never be deserted simply because danger threatens is a point of honor around which the artillery has largely built the solid discipline of its corps. These batteries were not less lacking in awareness of professional obligation than were others. But, as at Omaha Beachhead, where one battalion had lost its guns because they were beaten down into the sea, it happened this night that faithful gun crews suffered the same loss because their guns were beaten into earth beyond extrication, snared behind the funeral pyre of some other outfit or forfeited because the mover was riddled, and there was no other source of power. Perhaps not every man kept the trust and did his utmost; under battle's pressure, men are not found equal. But that which needs be remembered is that hundreds died or became missing in the effort to save machined metal which in the nature of the situation was beyond salvation.

In the record there is at least one index as to whether the artillery attrition was due to mortal terror more than to insuperable physical obstacles. Gun losses by the several battalions were in almost exact relation to the place of the battalion in the artillery column. Irrespective of weight, those which hit the trail earliest, when the road was least clogged by burning blocks and stalled heavy machinery, won through with the highest percentage of pieces. Those which trailed last found all doors closed to them. The road was to become a serpentine of rubble, wreckage and ruin.

KING Company, 38th Infantry, had been treated much as an orphan of the storm. Its 30 men had remained back in the jump-off area among the last artillery units, for lack of vehicles on which to move when the rest of the regiment rode through. Most of the 30 had managed to attach themselves to one battery or another of the 503d Artillery. The 503d was alerted for the start, then was re-deployed to fire positions to shell the most northern ridges, where late on 30 November the enemy steadily increased his mortar and machine-gun volume.

Lieutenant Blair Price of King continued to look for outgoing vehicles with room for the last few of his men. There was a wrecker alongside the road; he told Sergeant First Class Henry Seeman and four others to board it. The wrecker belonged to the 17 h Field Artillery —the 8-inch how outfit—which hit the trail while 503d was still shooting. By dusk the 17th had moved about two miles; it was then stopped by the jammed traffic up ahead.

Looking to westward, the Americans saw a line of South Korean soldiers falling back down the ridge slope, one of a group which had been cut off earlier in the day. Lurching on another 500 yards, the big guns passed onto a flat, well swept by machine-gun fire. It did little damage to the train, however. All of the fire was coming from the right, and along that side, trucks, jeeps and kitchens, previously abandoned, afforded an almost continuous shield covering the column.

When the train stopped, the artillerymen dismounted, and sought ground

The artilleryman and the infantryman struck fire together

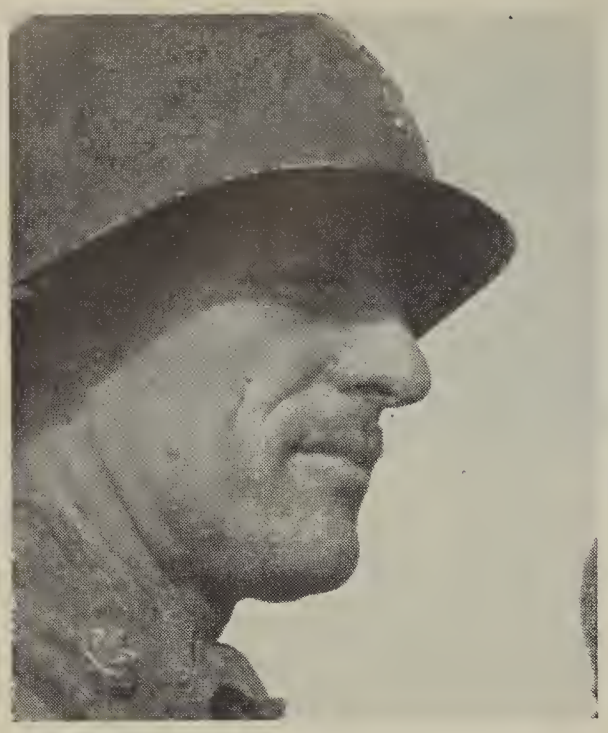


MAJOR JOHN C. FRALISH



LIEUTENANT DOUGLAS D. GRINNELL

The ack-ack commanders furnished the running gunfire



LIEUTENANT COLONEL WALTER KILLILAE



CAPTAIN SIMON J. STEVENS

from which, with small arms, they could cover the crests of the hills on the right. It was a well-intended precaution, but as proved in the event, slightly misaimed. From the left there was sudden tumult. The ROKs, last seen in retreat down the ridge on the right, had crossed the road to rearward of the 17th, and then tried to move south across the paddy fields, parallel to the column. The Chinese had closed in on them from both flanks. As the artillerymen ran to that side of the road, they saw the ROKs streaming toward them at a run, while a line of Chinese skirmishers, formed like a rough crescent, moved pincers-fashion to close upon them. Someone near Seeman yelled: "Hold fire!" and someone else answered: "No! Fire like hell! Give it to them over the heads of the ROKs!" That was what they did. Some of the Koreans were shot down as they raced across the paddies; others gained sanctuary with the 17th.

But as the last man closed on the road, there was a crackling sound along the length of the train as fire from two machine guns on the ridge to leftward (range 600 yards) ripped into the sides of the vehicles. The Chinese skirmish line went flat and supported the machine guns with close-in rifle and tommy-gun fire. For the Americans, there was no going to the ditches. The 8-inch how movers mounted a caliber .50 and a .30 machine gun and the gunners stood to their weapons and kept pumping lead. The small-arms firers also stood as they worked their weapons, using the movers or the body of a truck for a rampart. Such was the roar and rattle of the fire that all other noise was drowned out. In a few minutes it was pitch dark; the Chinese had had enough and the 17th had suffered its heaviest losses of the day. No man could see very much of how it had happened or what it had cost. But Sergeant Seeman made note that of the four men closest to him, two were shot through the leg, one through the chest, and the other in the shoulder.

AGAIN the guns moved forward. On the wrecker, Seeman and the others began to worry as they felt the heavy wheels ride up and over "the soft bumps in the road." It was a terrifying sensation. They could have been sleeping bags; they might have been bodies. Seeman whispered to an aid man, Corporal "Doc" Hall: "What do you think?" Hall replied: "I'm thinking what you're thinking."

But if their fears were sound, there was still no help for it. The machines of his heavy how outfit were all terribly weighty. When they moved they raised a dust cloud which would have made seeing difficult, even if the night had not closed down. As it continued down the gauntlet, it had to stay collected, against the likelihood that the Chinese would try another assault. The drivers could see almost nothing of the roadway. But they could follow the loom of the vehicle directly ahead. They moved along with their great chariots riding almost bumper to bumper. It would have been all but impossible for runners to operate between them, scanning the road surface.



The Kunuri Gauntlet

Their fortune upgraded after that one stiff fire fight. Going through The Pass, they encountered several bursts of automatic fire, but were not hurt. When they started the descent, they concluded that they had about reached home base reasonably intact, and the men lit up smokes. Off to the leftward, several houses in Karhyon were afire. As the column turned sharply just before getting to the ford, an 8-inch how went off balance and careened into a 40-foot gully. Then a twin 40 went dead in the center of the column and had to be shunted over the embankment so that other vehicles could clear. Someone went into the gully to thermite the gun; lights were turned on to help him. Promptly two mortars in Karhyon opened fire upon the road; white phosphorus grenades came sailing in against several of the vehicles. Nothing more was needed to urge the column on its way. The lead guns rolled on and the men quit worrying about what had been lost by the roadside.

Yet what can be said in a few words, still required hours in the doing. The ford was almost an impasse, its south bank being about 10 feet high, with the track steeply graded and curved. Only one vehicle could be risked in the dip at one time, lest the whole column become boxed. Lieutenant Colonel Walter Killilae of the ack-ack was with Lieutenant Colonel Elmer Harrelson of the 17th when the howitzers came to this obstacle. By his account, it was 2100 when the first of 17th's train went through the ford and 2400 when the last vehicle had cleared it. Hence there was no swift dash through the fire from Karhyon for this outfit. The two officers crossed the ford and walked forward until they found a medium tank and one of Killilae's own M19s. These chariots were running north with the object of serving as tows to help the heavy stuff pull out of the strcam bed and up the south embankment. Instead, they were diverted to shell Karhyon and so

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take the heat off the column during its struggle to clear the ford. In that mission they were effective. The Chinese fire ceased and the enemy seemed to have quit the village.

But the strain was still mountainous. The creek was about thirty yards across and three feet at its deepest. All of the lighter vehicles drowned out. They had to be manhandled out of the stream and up the grade beyond it. When the heavier stuff stalled in the water, they were towed out by medium tanks.

UP to the passage of the 17th Battalion, the enemy had repeatedly charged toward the road, but had not once succeeded in overrunning any fraction of the division. On the heels of the 17th's passing, this condition changed. Whereas at the southern end of the gauntlet the Chinese appeared to have become exhausted by their efforts of the afternoon, loosening their grip when the night fell, in the north the fury of the attack built up rapidly under the cover of dark.

The 37th Battalion, which followed behind the 17th, moving out at the same time as the few front runners from the 503d, lost ten guns during the journey. Some were hit and ruined by enemy fire. Others got hung up behind a block of debris in such way that they could not turn out and around. A few perhaps were lost in the dark when crews were killed and there was none to see and report.

The 38th Battalion, at the far end, last to get the call in the entire division, lost every gun and vehicle. It could not even get on the track, such was the chaos extending out over seven miles. There is no record of the retreat of this unit as a unit. Some of its men got back to Allied lines by traveling cross-country under the cover of dark. Many did not. The 105s were left in enemy country. For this, it was said in parts of the American press that their action was discreditable, the consequence of bug-out fever. They could have escaped this charge had they been able to put wings on the tubes and fly with them beyond the encircling ridges.

Between the 37th and 38th was the main body of the 503d. The melancholy yet triumphant story of that battalion's effort to save its 155s is as filled with the travail of that night as anything which happened on the road to Sunchon.

When darkness fell, the battalion was still in position on both sides of the road firing at the same ridges near the village of Chongnyongcham which Colonel Charles C. Sloane's 9th Infantry and a force of ROKs had assaulted during the morning. In return, nothing was coming against the gun positions except an occasional mortar round. When the tail of the 37th's column passed by, the 503d march-ordered and followed them in column. There was still a little flock of infantrymen nesting with the artillery. Twenty-one men of Love Company, 38th Infantry, had been told that morning they would ride out on the vehicles of Baker Battery, and had stayed put. Love Company having lost all of its officers and senior noncoms, Lieutenant Douglas D. Grinnell of Item Company took charge.

THAT was fortunate. With the artillery there rode a young S3, Major John C. Fralish. These two men got together in the worst crisis of the ordeal, and struck fire in each other, like steel to flint. The decisive impact of just a few willing hands upon a disordered situation has seldom been more dramatically demonstrated than in what they did as a team.

The column got not more than one mile from its start when it was hit head-on by a large force of Chinese. From the ridges on the left and to the rear, there was a prolonged blowing of bugles. From directly in front, and close beside the road, several machine guns opened fire. Love Company was about midway in the serial. Grinnell ran forward to look over the situation. It was then that he met Fralish and was told that the column was confronted by a well-set roadblock of at least two machine guns and a considerable number of rifles. One wave of Chinese had rushed from the roadside directly upon the forward vehicles and guns. That was Baker Battery. All the shock of a violent local surprise had attended the action. The men in the forward battery had met the rush as best they could. For a few minutes there was a wild melee. A train of Korean refugees had been trudging beside the vehicles. In the darkness and confusion it had been impossible to distinguish friend from foe. Clubbing their rifles and carbines, the gun crews and others had jumped down and swung toward anyone who came at them. One refugee had knocked a rifle from the hands of Lieutenant John E. McCode just as he was firing at a Chinese a few yards away.

But the odds were all one way. The Chinese had come boring in with rifles, tommy guns and grenades. They were on the target: Baker Battery couldn't even see it. In the first flash seconds, the leading tractor and the rear tractor had been knocked out by explosive charges. The guns were then beset un-



LIEUTENANT COLONEL ELMER HARRELSON

til every man of Baker was either killed, wounded, captured or driven off. (This was accurate: only two officers and twenty men of Baker ultimately survived.) Boarding the vehicles, the enemy had looted the Battery from end to end and pitched its belongings to the roadway.

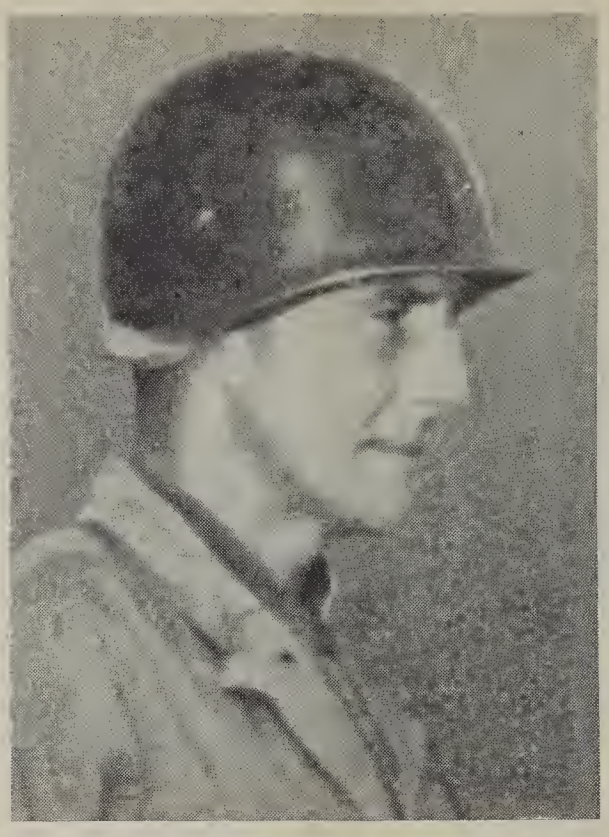
Fralish was in the middle of Headquarters Battery when Baker got hit. He walked to the sound of the fighting; the enemy had already pulled back before he reached the scene. Captain Darwin C. Dunn and First Sergeant Albert Dahrensbourg of HQ Battery had got there ahead of him. They told him that Second Lieutenant Peter T. Golden, Baker's trail officer, had gone forward to reconnoiter, taken a bullet through both legs, and couldn't make it back.

Several Korean houses, hard beside Baker's column, had been set afire and an ammunition truck in the middle of the battery was burning. The countryside was lighted for far around.

This was the situation when Grinnell got forward. He discussed it with Fralish; they concluded that unless they got prompt action and bucked through, the column would be totally destroyed.

Grinnell walked back toward his men. As he walked he could see shells exploding along the rear of the serial, and automatic fire pressing in against its sides. He already had a plan in mind. He had mentioned to Fralish that there were a number of ack-ack wagons behind them and if they could be brought forward, they might blast a way through. But neither Grinnell nor Fralish carried the weight of rank and both had an hour of sweat to go through before they realized this really didn't matter.

FRALISH still didn't know whether the Chinese, on leaving Baker Battery, had pulled back to the ridges or moved down the road to rig another ambush. His



MAJOR GEOFFREY LAVELL

alternatives depended on being sure of the answer. So he took this question to his commander, Major Geoffrey Lavell. But Lavell just shook his head in perplexity and said they'd better talk it over with Lieutenant Colonel R. J. O'Donnell of the 38th FA Battalion and Major Carl Kopischke, O'Donnell's executive officer.

To these three, Fralish put a direct question: "Shall we set everything in the column bumper-to-bumper, pour gasoline over all, torch it and go out fighting afoot, or shall we fight in place on a defensive perimeter?" The conference got nowhere. Both battalion commanders shrugged off the question. No one would take responsibility for decision. The conversation died.

A few minutes later mortar fire began falling on the center of the column. Kopischke told his men to drop trail and start firing on the ridge to the left from whence the mortar fire was coming. They went into action right from the road. The artillery fire touched off four or five enemy machine guns along the high ground; there was a vast increase of noise, though the aim was wild and the fire went well overhead.

Fralish made another try, requesting O'Donnell and Lavell to go to the head of the column with him, look the scene over and decide on the spot whether to attempt to crash through, and what guns to use. They walked forward together.

As they reached the wreckage of Baker Battery and scanned forward, Fralish stood at the left of the second vehicle in the column. O'Donnell stayed in the shadow to right of it. Lavell hugged the far side of a wrecked hulk which had been shunted over toward the right-hand ditch.

From directly forward of them, not more than 40 yards away, an enemy machine gun opened fire. The burst was dead on. O'Donnell went down with four bullets in his abdomen and one in his shoulder. Lavell and Fralish went flat behind the vehicles nearest them. Fralish had missed disaster by an inch; one bullet trimmed his mustache without breaking the skin of his lip, though it left a red welt on his face which remained for several days. Lavell crawled past O'Donnell and on to Fralish. He said: "I looked him over—he's dead."

Fralish asked permission to wheel one or two of the 155s into position and open fire. He could hear the sounds of digging out beyond and it sounded not more than fifty feet away. Still doubtful that he was dealing with Chinese rather than with Baker men, he three times called: "Are you GIs?" The only effect of the challenge was to quiet the noise momentarily.

Lavell said it would be all right for him to put a howitzer into action against



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the machine gun, if he wished. Further than that, he would not go. Fralish kept questioning him about whether he wanted to stand and fight or try a breakthrough. He merely shook his head as if greatly puzzled and said over and over: "I don't know." Shortly after that, Lavell wandered off, somewhere into the darkness, and his troops never saw him again.

His departure took place while Fralish was getting the first section of Charley Battery deployed into a rice paddy fifty yards off the road.

GRINNELL had gotten back to his men. There were at least two other stalwart spirits in this small party, Master Sergeant Leo G. Kelly and Corporal Roland W. Clatterbuck. Whatever Grinnell wanted done, they were ready to carry out. What encouraged the three of them was that while there was steady fire from the flanking ridges, it was not biting deeply into the sides of the column. Unlike the Chinese who had borne down Baker Battery, these Chinese weren't nerved for a pitfall. But the volume of fire was building steadily, and within recent minutes rifles from the low ground had joined the four mortars and four to five machine guns which were shooting at the road from the more distant hills.

Grinnell was still reflecting on his big idea; lacking authority, he still decided to go ahead with it, using persuasion. He sought out Captain Simon J. Stevens of Able Battery, 82d AAA Battalion, and in him found a kindred spirit. Stevens had taken a swing along the column to see how it was enduring the Chinese fire; he had counted twenty vehicles already set ablaze. Grinnell told him he believed the only way to save the column was to get the flak wagons forward and start shooting. Stevens needed no urging. He was looking only for a way to help. He picked out three quad .50s and two twin 40s and led them out. Grinnell rode along. On passing Love Company, Grinnell told Sergeant Kelly to round up the men and jump aboard the AA vehicles. He didn't want to lose track of them and, he reflected, a few riflemen might be needed up front later. Though it was a tight squeeze, they managed to double pass the stalled vehicles.

Before placing the 155s in the paddy field, Fralish had had the same flash inspiration as Grinnell. While the pieces were going into position, he sent Lieutenant Oleg V. Warnek to find Stevens and bring the flak wagons forward. Warnek met the Stevens-Grinnell task force



LIEUTENANT BLAIR PRICE

not far back; it was under full steam and proceeding toward the fire.

In the paddy field, Fralish was readying the No. 1 how. Charley Battery had some LMGs and he had put one on either side of the piece, besides deploying to his right eight men armed with carbines. Fralish personally boresighted the piece toward the enemy machine gun which he judged to be about seventy yards away. The No. 1 man stood with him between the trails as the big howitzer opened fire.

They got off three rounds. As the third shell emitted, Fralish saw the No. 1 man fall, and thought he had been knocked down by the recoil. He reached down to give him a hand. Only then he realized that the figure on the ground had no head. He saw a clean hole in the shield of the gun; suddenly everything was explained. At the exact instant of the flash, an enemy rocket round had struck, disabled the piece, pierced the shield and decapitated the man holding the lanyard.

There was no time for shock from this experience for just then Stevens and Grinnell arrived with the AA battery. In five minutes the lead M19 was at the head of the column. Fralish showed the gunner where he thought the machine gun was nesting which had felled O'Donnell. The multiple-barreled weapon cut loose, searing the foreground. After an interval, fire stopped and Fralish walked forward; he found a ruined gun and six dead Chinese beside it. Then he led the M19 past the gun, through a deep ditch and back onto the road, with the other four flak wagons grouped close behind it. He, Warnek and Grinnell then instructed the gun crews; they were to keep moving, firing forward and to the flanks as they moved, with the lead vehicle aiming ahead, and the others alternately searing the flanks. They need not have worried; Stevens already had the idea and his crews were well in hand.

ONE particular thought oppressed Fralish. Lavell might have been wrong in saying that O'Donnell was dead. Fralish ran back to see. O'Donnell was conscious, though terribly wounded and in great pain. He was taking it gallantly and made light of his condition as Fralish talked to him. Fralish wanted to find a medic; but he was also under the urge to prod the other vehicles forward to where they could form behind the flak wagons. He started rearward on this dual mission. Meantime, Warnek came back, wrapped O'Donnell in a blanket, carried him forward and lashed him with ropes to the front of the lead M19. That was how O'Donnell rode through the gauntlet, and by some miracle survived.

By beating the bushes, the three musketeers—Grinnell, Fralish, and Warnek—got about 35 vehicles lined up behind the AA guns ready to make the break. Their hope was that when the elements to rearward saw that the road was being opened and that traffic was moving, they would fall in behind the battering ram and follow along. But it was a dim hope.

Looking north, Fralish saw vehicles burning far into the distance. He heard grenades exploding and knew that the

A NOTE ABOUT THE PICTURES

The editors would have very much liked to reproduce a picture of every person named in this memorable account of one of the most stirring actions fought by American arms. But that has proved to be impossible. Most of the photographs are from Signal Corps files. Exceptions are the pictures of Captain Stevens and Colonel Killilae, both furnished by Colonel Killilae, and the picture of Colonel Marshall, furnished by the *Detroit News*. In most instances the Signal Corps pictures were not formal or informal portraits but group photographs of one kind or another. In each such instance we have used only a small portion of the whole picture. And in several instances we have had to depend on the magic of the photoengraver to get any kind of reproduction.

The sketches are by Gil Walker, a young New York trained artist, who has served in the Army and who is now a civilian artist in the Department of the Army.

Chinese had at last closed directly on the road. There was a wild blowing of bugles which continued on and on. Mortar rounds of white phosphorus were exploding frequently onto the roadway. The rattle of small-arms fire continued.

He felt he could not prolong the roundup indefinitely with any hope of saving his own contingent and the guns protecting them. The task had been hard enough. Already he had shaken loose several jeeps and trucks wherein the driver was sitting dead at the wheel and the other riders were too weary or shocked to note or to replace him. He had carried the bodies to the roadside and then manhandled some other individual to behind the steering wheel. To all others, he had kept shouting, "You will keep moving and keep firing," until his voice was about gone. It was time to start.

Grinnell spread Love Company—twenty men—as skirmishers on both sides of the road, and with the ack-ack leading, the convoy started at a walking pace. Above the rattle of the guns, Grinnell found that it was impossible to make the gunners hear him as he shouted directions while moving with his own line across the paddy fields. So he hopped aboard one of the M19s, and when the convoy drew fire from the ridges, he told the flak gunners where to return it. But it was all too slow. By the time the column advanced 600 yards, the leaders knew that the pace itself was compounding the danger from the flank fire. They decided to mount up and barrel down the road as fast as the run could be made. They still expected that the right of way would be fairly clear of any impediment or block, as they knew nothing about the struggle of the earlier serials.



MASTER SERGEANT JOHN F. SULLIVAN

For perhaps another thousand yards they made good speed. Then they slowed as they came to the first wrecked convoy. They saw the smouldering and ditched vehicles, and the debris littering the roadway. The flak wagons blistered the ridges on both sides of the road. Grinnell walked forward to take a close look at the scene of the pillage. He saw that the Chinese had systematically laid sleeping bags spaced out and crosswise of the road. But in the interstices of this corduroy there were also American wounded, lying flat across the road. It looked as if the enemy had dragged bags and men to this position, either to force the column to halt, or compel the American vehicles to bray their own wounded. Each ack-ack unit had a one-ton trailer behind it; the wounded were loaded thereon. The convoy had to inch forward while the clearing was done, but the guns continued to pound the hills, and the enemy made little reply.

That was a break for one group. Corporal Weatherford and the score of men with him who had escaped the ambush at this spot were still holed up in the ravine to leftward of the road, waiting for help to arrive. They had just decided to take off cross-country when they saw the flak wagons coming toward them and sweeping the ridges.

Said Weatherford: "It was a wonderful sight. Until then, the Chinese on the ridges opposite us were riding high and seemed to be increasing in number. When the ack-ack hit them, they subsided completely." The party ran back to the road and jumped aboard the convoy.

At least thirty minutes were spent in clearing the wounded from this one block, Sergeant Kelly taking the lead in the work. He had no blankets or other material in which to wrap them, but stacked deep as they were, body heat possibly helped. It was about 2230 when the convoy got rolling again.

After a time they passed that part of the column which had been wrecked in late afternoon, several miles short of The Pass. The signs of pillage were as before, but here there were no American wounded. One thing made Grinnell's heart sink. The convoy passed successively the ruined MP vehicles, two abandoned tanks, several radio jeeps and about ten division Hq trucks and jeeps; the farther they went, the higher the echelon which had been hit. It came to these men, like a punch on the button, that the 2d Division had been destroyed and they were the only survivors with a chance of escape.

When they came to a vehicle, or series of hulks, which barred the road, all hands unloaded to join in the ditching. As they weaved in and out through the wreckage, sometimes careening against parts of it, almost no fire came against the front of the column. The ack-ack was doing its stuff; during the entire run to The Pass, the lead vehicles felt nothing except a sprinkling of rifle fire and three 3.5-inch bazooka rounds which hit nothing vital. The enemy reaction was as if they had concluded by this time that what remained of the division was blocked solid and nothing else would come over the road. For their forces still held the hills. The fire of the ack-ack alerted them, and they cut loose with rifles and machine guns in double doses against the tail of the



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column. But they had taken to the ridge tops and most of the fire was high.

AS they topped the divide within The Pass (it was then in the early hours of morning) Fralish stopped the column. The Pass itself was relatively quiet, though one mortar and a few rifles were popping away from somewhere upslope. It was the scene beyond which gave Fralish pause. Karhyon was burning from end to end and the glare lighted the whole east facing of the ridge; there the countryside seemed to be swarming with Chinese, moving out in all directions like ants teeming from a bed. From east of the village a 76mm gun was firing toward the south exit.

Captain Stevens came forward; he had been jeeping along in the rear to keep the convoy closed up over the greater part of the distance. A council of war was held. Captain Charles S. Barbour, S2 of the 503d, had a map of the area. Fralish had a compass. They got down under a blanket and by the glow of a cigarette lighter studied the course which should be taken to get to Sunchon by cutting across the ridges. Since the wounded couldn't walk in any case, it was decided to send them in the vehicles past the village, leaving only the driver and a couple of guards aboard each unit. The able-bodied would strike off cross-country, thereby lightening the vehicles and giving the wounded a better chance. Stevens would take over the flak wagons, run them out first and plaster Karhyon as he passed. There were about 100 men in the column which formed to go afoot.

Stevens had a relatively simple yet dangerous job to do, and he went to it as promptly as he could get his column organized. The conflagration in Karhyon lit up the country far beyond the ford and put a spotlight on everything moving via the road, once The Pass was left behind. There was no option but to trust once again in the dampering effect of the ack-ack. On emerging into the open the flak wagons turned their full power against the village and the ridge beyond it; the barrage was sustained for perhaps 10 minutes; the results were not entirely happy. Stevens was personally directing the work of the lead wagon. Bullet fire came against it from both sides of the road. He headed for the ford, and splashed through it and up the south embankment without excessive difficulty. But behind him his train was already two fighting vehicles less. One M16 driver missed the turnout to the ford and the vehicle did a dive into the black hole where once the bridge had stood. But it only dropped eight feet, its fall being cushioned by the wreckage of other vehicles which had made the same error. A second M16 was knocked out by enemy fire. Stevens went on a thousand yards and came to a friendly roadblock. He then doubled back to the ford and helped the final contingent of about 40 wounded to clear through it. These were the last vehicles to get through The Pass.

Fralish and his rifle column had climbed the embankment to the ridge saddle while Stevens was forming his column and getting under way. When they gained the crest the party became unaccountably noisy; some of the men wanted to talk; others moved carelessly, making quite a clatter. Fralish and Grinnell cautioned them but the racket continued. Fralish stopped the march, and said that the group would stay on that spot until dawn came.

The decision promptly exploded in his hands. By a fluke, Stevens, in turning the guns of the quad .50 against the ridge top after plastering the village, put his fire directly on Grinnell's men. They scattered like quail before a shotgun; whether any were killed by the fire is not known; the group dissolved as men ran pell-mell for cover. Each man got out as best he could.

CORPORAL CLATTERBUCK was soon walking alone along one of the ridge trails. For perhaps an hour he wandered aimlessly. Then his senses told him that he was "being trailed stealthily by four or five guys." He sank down behind a rock, waited for them to come up, and then pointing his rifle, challenged: "GIs or Chinks?" One man identified himself as a captain from the 503d. He said to Clatterbuck: "You say you're lost; well, what do you think I am?" They kept on walking, still with no idea in which direction they were moving. At last Clatterbuck heard a tank moving off in the distance and decided to guide on the sound. Some miles farther along his ear caught the noise of a truck being double-clutched. He said to the captain: "We must be right; no Chink could do that." As dawn broke, they came to a highway, pocked with tank tracks. They studied the dust pattern, figured which way the tanks had been moving, and followed them until they met an American outpost.

Grinnell and Fralish got headed in the same direction when the ack-ack stampeded the party and they picked up a few men as they moved along. Stevens' barrage had served one good purpose; they became reoriented on his



LIEUTENANT COLONEL ROBERT J. O'DONNELL

line of fire. So they made a wide circle around Karhyon, and getting well to east of it, started south for Sunchon. At 1500 the party had to stop and sleep for an hour; the men were completely spent. At dawn, from a high ridge, they looked back on Karhyon through field glasses and saw that it was now the site of a large enemy encampment, with many Chinese bivouacked in the nearby flat, and picket lines of Mongol ponies. To east of the ridge where they observed, they saw another village, near it a road, and on the road a column of about 70 men moving northwest. It was guessed that they were Chinese. A flight of F-80s moved on the column, as if to attack; but after circling several times, they flew away. For another hour the party marched southeast. Again looking eastward they saw a body of men, this time heading south. A spotter plane was circling them and the men were waving. The truth gradually dawned that this was the same column seen earlier, and that they had been mistaken for Chinese only because, having lost direction, they were marching toward enemy country. With the addition of this column and other small groups, the party grew to 250 men.

At this point Major Fralish assembled the party and announced that as the senior officer present he was taking command until the party reached friendly lines. He delegated Grinnell, the senior infantryman present, to handle tactical disposition for the march and to keep the column on the right compass bearing—determined by Fralish.

They waded the Taedong River; it was waist-deep and crusted with ice. Soon after, a liaison plane landed next

THEY CAME OUT . . . TO FIGHT AGAIN



The 82d AAA Weapons Battalion again supported the 38th Infantry —during the battle on Old Baldy in September 1952.



The 2d Division artillery pounds at the enemy. The Eighth Army has fired more artillery ammunition per gun than any army in history.



And the Doughboys of the 2d Infantry Division continued to footslog across Korea in the months following the fight at the Pass.

(The editors can't guarantee that these photographs from Korea are of the units of the 2d Division that were involved in the night battle in the Pass. But they are typical.)

to them on a sand bar, bringing a map, four cases of "C" rations, five gallons of water and first-aid supplies. The men had worked for half an hour clearing the sand bar of boulders so that the plane could put down. When it took off, the two worst cases among the wounded were aboard. That left about 40 wounded still with the column. But one touch from a friendly hand made all the difference; they took off with lightened step on the trail to Sunchon.

IN this way, the first group of so-called "stragglers" returned to the Division. It was but one incident among hundreds, each having its own special torment. Those who traveled the fastest probably had the best fortune. Many who came out late could recall almost nothing of what had happened to them.

As to men and guns, the statistics of loss in the gauntlet fight have no place in this narrative. In any case, they cannot be stated with precision. At Valley Forge, in the birth struggle of a nation, but 3,000 of 7,000 Continentals died or faded from the force in one terrible winter. In round figures, the wasting away of the 2d Division and its attachments is roughly comparable. But it all happened in one day.

The hospitals in the forward zone overflowed wi'h its wounded. Captain William O. Burla, who had collected many of them from the road, found on arriving at the 5th Cavalry's collecting station south of Sunchon that there was no room for his charges. Already, there were 250 cases, lying on the ground in the winter cold, waiting for their turn on the table. He continued on with his caravan to the 15th Medical Battalion, just north of Pyangyong. There, too, the patients were lying in queue, waiting for the doctor's hand. He was told to take his vans on to the city, where there was another hospital. Lieutenant Maxson, the assistant battalion surgeon, who had also salvaged men from the roadside ditches, witnessed the streaming of the wounded into Sunchon. Of the British aid station and the 5th Cavalry's station he said: "I have never seen doctors work more heroically." More than 400 cases had been attended by morning. The waiting line still had not grown less.

That was on December 1. By Christmas Day, 2d Division was again a going concern, en route to a new battlefield. Its swift flight upward from its own ashes, even more than this story of struggle, bespeaks the character, courage and faith of those who survived, and the others still missing.

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Agreement to Merge

AGREEMENT TO MERGE the two Associations has been reached by the U. S. Antiaircraft Association and your own Association, the Association of the U. S. Army. We hope the final fact of merger can soon be announced.

The members of the Antiaircraft Association voted about 9 to 1 in favor of merger. No vote was taken of our own membership. At the time the Infantry and FA Associations joined to form our present Association, the vote of both those groups was over 98 per cent in favor of a merger which would have then included the AA Association as well. And since that time there has been no noticeable change of opinion among our members.

THE GREAT MAJORITY of today's professional readers of a military journal devoted to any aspect of combat would much prefer to get the whole thing in one magazine—Armor-Artillery-Infantry, and all the technical sides of combat, too—Engineer, Chemical, Signal, etc.

And anybody who stops to think seriously about the relative merits of a single strong Army combat Association and several small ones will soon recognize that the best interests of the Army would be served by merger of all combat Associations. A single strong Association can far better represent the interest of the combat divisions, regiments, battalions, companies, and platoons and the different combat troops among them than a number of separate branch associations can. We only need to look, for example, at the capable and notable work done for the U. S. Marine Corps by the Marine Corps Association, and comparable associations in other services.

Today the Marine Corps Association boasts nearly 75,000 members—many more than our Army Association—and more power to them in their constant full support to a fighting combat corps.

THE PRINCIPAL REASON why our own Association has hardly half as many members is because in the Army we have remained separate in our effort. In most places, except combat itself, there is still far too much branch feeling. Branch *esprit,* branch pride, branch rivalry in accomplishment, are fine. But not branch mistrust, branch jealously, and branch provincialism, which are still with us far too much.

So merger is the logical step toward the combat association strong enough and effective enough to speak and stand for the U. S. Army alongside the strong Associations of the Sister Services.

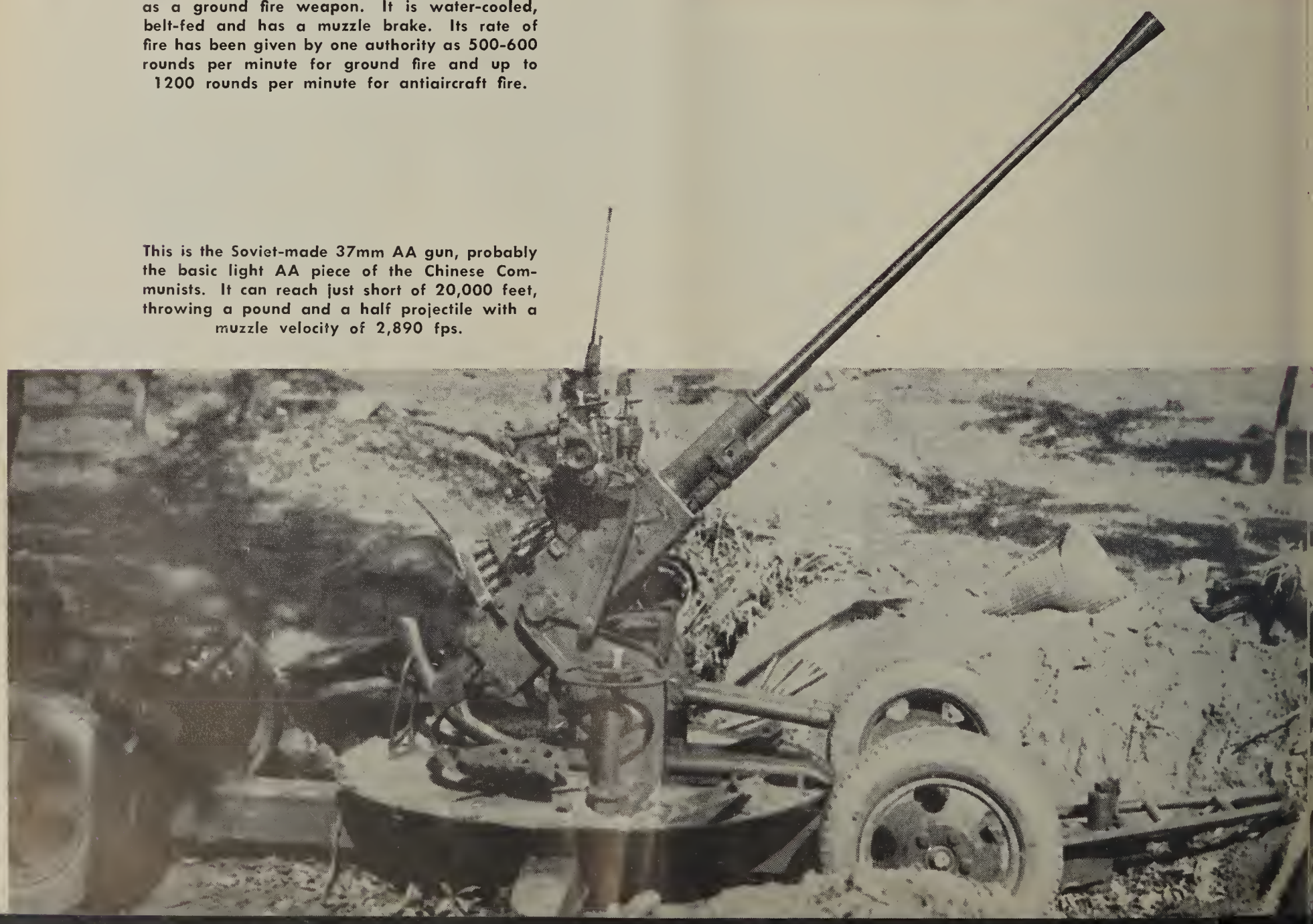
THE ASSOCIATION of the U. S. Army takes much pride in knowing that 9 out of 10 members of the U. S. Antiaircraft Association have expressed their belief that a joining of the two will be a wise and helpful move. We trust, indeed, that the final steps can soon be taken toward this completion of merger between the members of the AA–FA–Infantry Team.

The CCF's AAA

it's Soviet-inspired and not much to look at, but our Air Force finds it a pesky irritant



The Goryunov 7.62mm machine gun is also used as a ground fire weapon. It is water-cooled, belt-fed and has a muzzle brake. Its rate of fire has been given by one authority as 500-600 rounds per minute for ground fire and up to 1200 rounds per minute for antiaircraft fire.



This is the Soviet-made 37mm AA gun, probably the basic light AA piece of the Chinese Communists. It can reach just short of 20,000 feet, throwing a pound and a half projectile with a muzzle velocity of 2,890 fps.

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THE U.S. Air Force has made few official references to either the presence or effectiveness of Chinese Communist antiaircraft fire against either the B-29s that bomb from the Yalu southward or the planes that fly interdiction and close-support missions. An unofficial Air Force opinion is that the CCF's antiaircraft is pesky enough to require planners of bomber missions to provide planes that fly "anti-tank" missions. Further than that the Air Force doesn't go, officially or unofficially, and for very good reasons.

That doesn't tell us how "good" the CCF antiaircraft artillery is by a long shot. General Collins has told Congress: "In Korea, 87 per cent of the United Nations' planes lost in combat have been lost because of enemy ground fire." The number of our low-flying close-support planes that may have been winged by the lucky shot of a Chinese Red rifleman is probably nil, so the full 87 per cent may be attributed to the enemy's AA.

But that still doesn't tell us how "good" the CCF ack-ack really is. Nor do the weapons pictured on these two pages; all are conventional AA weapons of World War II vintage or earlier. There's nothing here that can stand up to our new AA weapons. Skilled antiaircraftsmen could closely judge the effectiveness of the Chinese Red antiaircraft arm if they knew a little about the radar it uses. But little has been revealed. And no AA system is any better than its fire control methods. Certainly the CCF has shown nothing that compares to our T-33 fire control set which General Collins has described as being "more effective than World War II equipment [and] permits our weapons to fire at greater ranges and higher altitudes."

Little is known either about Chinese Communist AA organization and any formal tabulation is suspect because the CCF in certain particulars remains an army armed and serviced with a hodge-podge of weapons and equipment; some U.S. captured from the Chinese nationalists, some Japanese captured from the Japanese forces in China, some of Chinese manufacture and origin (but modeled on well-known Western types), and some from the Soviet Union.

The CCF probably has an antiaircraft artillery company as part of the heavy weapons battalion of the infantry regiment. This company may be armed with Soviet-made 12.7mm DShK machine guns.

The Field Artillery division also has an AAA battalion, plus an AAA company in each field artillery regiment of the division. These field artillery divisions are usually field army or army group organizations.

The CCF antiaircraft organization for the defense of industrial areas and lines of communication hasn't been made public.



The Soviet Army's 85mm medium AA gun is also used by the CCF. It can fire a 20-pound projectile some 34,000 feet into the air and has a muzzle velocity of 2,620 fps. It weighs something less than five tons.





FORWARD AIR CONTROLLER

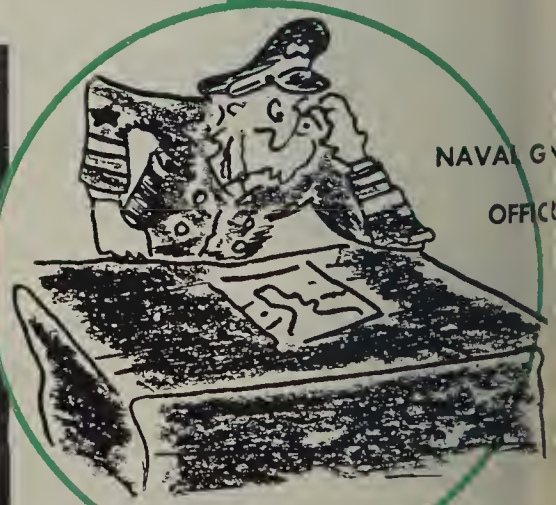


ARTILLERY S2



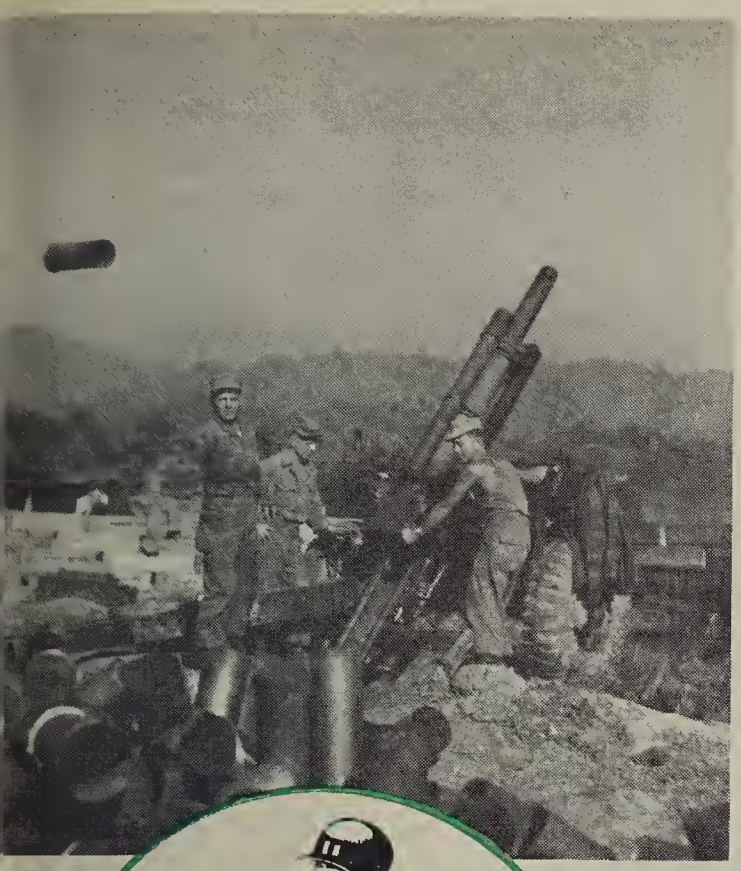
ARTILLERY S3





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FOR BATTLEFIELD TEAMWORK

FSCC

FIRE SUPPORT COORDINATION CENTER

Captains Patrick W. Powers and Josiah A. Wallace, Jr.

OUR forces today are confronted with real and potential enemies who have us outnumbered. So our attacking forces—infantry and armor—must rely heavily upon the fire power of artillery and tactical aviation. Fire power can be decisive only if it is properly and fully teamed with infantry and armor. But the team must be controlled and its separate forces directed for the common good. Thus fire support coordination is a never-ending *aggressive* effort to exert a decisive influence on the course of battle.

This article will demonstrate techniques for combining fire power and fire support coordination in a key agency—the fire support coordination center (FSCC)—and to demonstrate how the FSCC performs its mission at the regimental level. This doctrine of fire support coordination is based on Department of the Army Training Circular No. 23, dated 3 August 1951, and proposed changes, dated 2 October 1952.

CAPTAINS PATRICK W. POWERS, Artillery, and JOSIAH A. WALLACE, JR., Infantry, are both instructors in the Tactics Section of the Department of Guided Missiles, The Artillery School, Fort Bliss. Captain Powers is a 1945 graduate of the Military Academy and took postgraduate work in mechanical engineering and guided missiles at the University of Southern California. Captain Wallace is a 1946 graduate of the Military Academy and has attended the officers' basic course at both The Infantry School and The Artillery School.

Fire Support Coordination

IN the infantry-tank-artillery team the force commander is responsible for the coordination of fire support. He delegates this critical task to the artillery commander since the artillery usually (and traditionally) supplies the greatest amount of fire







support. Because his principal duty is to give fire support it is logical for the artillery commander to coordinate and direct other weapons that do the same thing. These are, principally, tactical air forces and naval gunfire.

The artillery commander must be aggressive and insist on an aggressive staff. This vigor will show itself in a continual effort to evaluate and plan every possible way of using all of the fire support weapons available to the force. In the heat of battle, infantry and armored unit commanders are more than busy controlling the fires and maneuvers of their own arms and they work under conditions which are not conducive to continual appraisal of the full capabilities of all fire support weapons. So the artillery commander and his staff must be alert for targets: enemy reserve units, hostile mortars or artillery, and any other threat real or potential, to the force. The impetus on fire support, like the impetus on logistical support, must be *from the rear to the front.* Artillery commanders and staffs should be continuously moving forward to find out what fires the assault units need and getting these fires to them. Useless, indeed, is the artillery battalion commander who organizes and emplaces his battalion's weapons, lays a wire net, announces that he is ready to fire, and then waits for something to happen!

AGGRESSIVENESS and vigor aren't enough. There must be also a high degree of professional ability and skill. The artillery commander and staff must know intimately the gunnery and tactics of all the weapons, and the capabilities and limitations of tactical air power, naval gunfire, and mortars. Moreover, all of the artilleryman's battle-winning tricks—the roving piece, the false preparation, the delicately timed counterpreparation—should be as familiar as an old shoe to a Doughboy. The S3 of his staff should be a master of fire plans. He should be able to draw up a battalion fire plan in support of a regiment in the attack in thirty minutes or less, and a counter-preparation plan in about the same time. A harassing and interdiction program should be an easy matter of twenty minutes. Furthermore, the S3 must master the technique of the commander's estimate and be able to write an operations order with routine dispatch.

The complement of the S3 is the S2, a most vital member of the fire support team. Of what value are expensive and effective weapons and piles of ammunition if we cannot get the targets to destroy? The S2 (particularly the direct support battalion's S2) must be capable of making a rapid tactical study of terrain and weather in ten minutes or a more detailed one in perhaps a space of days. The intelligence plan, S2 worksheet, target file, hostile battery chart, and enemy capabilities worksheet (to name a few) should be daily habits. The S2 should reflect the commander's aggressive actions by searching for every last enemy soldier and weapon located within the zone of action of his unit. The other members of the staff must be just as competent as the S3 and S2, although they may not be as directly involved in actual fire support operations.

A high degree of cooperation among the officers of the artillery and infantry units is necessary. One of the best ways to promote cooperation is personal acquaintance. Unfortunately in the usual training phases, it is difficult for artillery officers to get to know their fellow officers in the infantry units. Commanders can get around this by insisting on social calls, informal coffee calls, or other ways of getting their officers together. Whatever technique is used, the commander will have to work hard to overcome the time-honored tendencies of all combat troops to bog down in the administrative routine of training and garrison life. In combat, personal acquaintance between the units is sometimes extremely difficult, but nothing points up the needs of the infantry so sharply as a visit by the artillerymen to the infantry's CP or lines. One company commander from Korea recalled that the only artillery outfit that he could depend on all of the time was one that had a battery commander who visited him occasionally, checking up on his observers and the general situation.

The FSCC

THE fire support coordination center (FSCC) is the operating agency of the force commander. In it representatives of the command and the fire support agencies—artillery, air, and navy—together plan, coordinate, and integrate fire support. The FSCC is organized by the artillery commander, who is designated as the coordinator at the regimental (or combat team), division, and corps levels. The FSCC is not a TO&E organization but is established with whatever personnel and equipment are available. It provides the force commander with coordinated advice and recommendations for the most effective use of the supporting arms, and efficient min-

DUTIES OF THE FSCC STAFF

FIRE SUPPORT COORDINATOR (Artillery Commander)	**Formulates the general concept of fire support—coordinates this with the infantry S3** **Integrates the fire plans of all fire support agencies into the fire support plan**
ARTILLERY S3	***Directly supervises the operation of the FSCC*** **Prepares the artillery fire plan**
ARTILLERY ASSISTANT S3	**Supervises the gunnery functions of the FDC**
ARTILLERY S2	**Searches for any and all targets on the battlefield** **Supervises maintenance of the situation map and target file**
NAVAL GUNFIRE LIAISON OFFICER	**Prepares the naval gunfire plan** **Advises on the employment of naval gunfire**
FORWARD AIR CONTROLLER (FAC)	**As a member of the TACP (Tactical Air Control Party), he directs air support onto the target** **Advises on the employment of tactical air**
REINFORCING ARTILLERY LIAISON OFFICER	**Assists the FSCC in employing the fires of his artillery battalion**

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ute-to-minute control over all available fire support. Most important, *it directs the fire power of all the supporting arms.* The FSCC can be located at either the artillery headquarters or the supported force headquarters. It may or may not include the artillery fire direction center (FDC). The actual location and composition of the FSCC is up to the force commander. In this article we assume that the FSCC of an infantry regiment is at the direct support artillery battalion headquarters which includes the FDC. Good coordination can be achieved with an FSCC located at either the infantry or artillery headquarters if the staff officers assigned to the FSCC are willing to make the system work. The personnel directly involved are shown in the picture diagram on the opening pages of this article. The artillery commander as "the coordinator" is not shown since he is up with the force commander at the regimental OP during the critical phases of an operation. In fact, the artillery commander will seldom be in the FSCC since he must also visit forward outposts frequently, make inspections of his batteries regularly, and fly over the battlefield every two or three days. He will probably be at the FSCC in the evenings to direct the fire planning and to attend briefings, and again early in the mornings for a briefing before departing for the force commander's CP.

To take a closer look at the personnel of the FSCC and see just what their more important duties are, study the chart on the opposite page.

Observe that it is the S3 who supervises the FSCC and *during* an operation makes the important decisions of what weapons will attack targets of opportunity. A cardinal rule: the S3 (or whoever is directing the FSCC) should never become involved in the gunnery aspects of a particular fire mission. Reason: he is likely to become so engrossed with this smaller problem that he neglects the overall functioning of the FSCC. To assist the S3, the artillery commander has given him the fire support plan, the weighted effort of the attacking units, and a list of target priorities.

To be effective, fire support requires detailed planning based on the support requirements of the regiment. This planning is a continuous process and must be consistent with the rapidly changing requirements of battle. Before detailed plans are made, a general concept of fire support based on the plan of maneuver is formulated by the artillery battalion commander after his daily visit to the regimental CP. This general concept includes such items as the bulk of fires to be delivered, the weighted effort, and the types of targets to get priority. When this is known the fire support plan, consisting of the fire plans of the available fire support agencies (to include the necessary coordination), is drawn up.

This fire support plan is concerned with the attack of *pre-planned* targets. Here a definite decision is made after measured evaluation of the target and the fire support available. The designated agency to supply the fires is then informed—probably on the preceding day—and the necessary orders are issued.

To meet the needs of the assaulting units during an operation, the FSCC directs the attack on *targets of opportunity* that appear during battle. Rapid decisions are necessary. If possible, the supporting artillery should be considered first, then naval gunfire if available, and last, close air support. This is based on many factors which may include: effect desired, availability of supporting weapons, weather and terrain, and time. When the S3 wants to use a fire support weapon other than that specifically requested by the force commander, his concurrence must be obtained.

Spend with Caution

In the heat of combat, soldiers naturally forgot that they were taxpayers as well as fighting men, but the Ordnance Research and Development staff realized that they must keep costs in mind when planning new weapons. One of its officers told a committee of the Bureau of the Budget ". . . we are almost as interested in Dun and Bradstreet as we are in American men of science." The balance to be maintained between the armament program and the national economy as a whole had, of course, to be determined by national policy. For the Ordnance Research and Development Division, the problem remained how to carry out any policy when finally settled.

Dr. Constance McL. Green
Historian, Research and Development Board, Department of Defense
Military Review
April, 1953

FSCC in Action

PROBABLY the best way to see how an FSCC functions—short of visiting one (probably prohibited by the FSCC's SOP)—is to study the record of one that has successfully operated in combat. Let's examine, then, the FSCC of a regimental combat team in Korea, both from a physical arrangement and a twenty-four-hour sequence of events. The S3 is not at his desk but in the middle of the tent directing the unit. The assistant S3 is doing his gunnery job at the firing charts. Able, Baker, Charlie, and K radio channels are located conveniently for fire direction as well as being handy to the TACP. The maps and S2 data are well displayed, visible to the S3, and always in the same relative position.

Here is the way a day in this FSCC might turn out. Assume that the infantry attack starts at 0700 and there is no naval gunfire available.

0400	Artillery harassing and interdiction fires cease
0430-0700	Artillery preparation fires for the attack
0630	Air OP over the area Artillery battalion commander goes to the regimental OP
0700	Artillery preparation fires drop to initial objectives until infantry reaches assault positions and then are lifted on call.
0700	Air strikes coordinated with preparation fires
0700	Search for hostile mortars and artillery becomes more active as shell reports come in
0700	On call missions for artillery forward observers and liaison officers Targets of opportunity for artillery and tactical air (now the FSCC begins to handle missions requiring S3 decisions)
0830	Deep visual reconnaissance by tactical air (requested and controlled by artillery S2 at the FSCC)
0930	Defensive fires placed beyond the initial objectives when reached by the infantry
0930	Artillery S3 implements any changes in the fire support plan as determined by the coordinator Continue search for hostile mortars, artillery, CPs, and reserves
1500	Begin planning of harassing and interdiction fires Send plans to general support and/or reinforcing artillery battalion
1600	Begin planning of defensive fires (also counter-preparation) Complete registration or checking of defensive fires
1700	Plan air support needed for the following day and forward request to include photo coverage to the JOC
1700-1800	Make up PIR (periodic intelligence report) and POR

BLUEPRINT FOR TRAINING

What to Do	*How to Do It*
Obtain a high standard of professional ability on the part of the artillery staff—particularly the S2 and S3	Unit schools Use of correspondence courses provided by TAS and TIS Informal instruction given by the commander to his staff
Build up close personal acquaintanceship between officers of infantry, armor and artillery units—particularly among the staff officers	Exchange tours for certain training problems (infantry officers attend artillery service practice; artillery officers attend infantry company problem). "Joint coffee calls" at a unit mess at least once a week. Infantry and artillery alternate as hosts. Informal athletic games Required social calls
Get the necessary furniture for the FSCC	Tent-M/R as PCS property Radios and phones—TO&E Fire direction equipment and drafting supplies—TO&E Folding tables and chairs—PCS and TO&E Three large mapboards—8 feet by 4 feet Lighting system
Decide on internal arrangement of FSCC	Move equipment around to suit yourself, but— S3 must be able to easily see all maps and charts, and phones and radios must be easily reached Have enlisted personnel practice setting up FSCC—tent and equipment—until they can make the complete installation in a reasonable length of time (30 minutes)
Achieve a high degree of operating efficiency within the FSCC	Set up and practice drills for FSCC Use the FSCC in every RSOP, CPX and service practice which the artillery battalion or infantry regiment conducts
Sell the FSCC to all members of the infantry-tank-artillery team	Conduct classes to orient all officers Provide demonstrations of the FSCC in operation for all officers and key NCOs.

	(periodic operations report) Make intelligence and S3 estimate of the situation to be used in evening briefing and fire planning
1800	Begin harassing and interdiction fires
1900	Briefing by artillery battalion commander (after his return from the regimental CP) of battery commanders and his staff
1930	Artillery battalion commander's order
2000-2200	Make up the fire plan for the next day. Distribute to general support and/or reinforcing artillery battalion Completion of intelligence plan for the next day
Next Day	
0430	Artillery preparation fires for the attack

FROM this brief glimpse of a combat FSCC several important training lessons can be observed. First, after several days of such routine, fatigue begins to cut down the efficiency of the organization. Then it is advantageous to have men cross-trained in other tasks. Secondly, the vital decisions made by the S3 point out once again the high degree of training and thorough professional ability that he must possess. The use of a squad tent is going to be unpopular with many people. They will complain that it is a big target and difficult to erect. They are right, but it is the best tentage available in which to house the FSCC. The FSCC in Korea that we just looked at had two strictly enforced rules: no eating in the tent and no loafing. The latter refers to the visitors who wander in to see what is going on—and end up getting in the way.

To illustrate what might be considered the maximum coordination achieved by this agency, here is an excerpt from combat. Shortly after the airborne operation at Nunsan-ni in March, 1951, the 187th Airborne Combat Team moved across the front of the 3d Division into the valley north of Uijongbu and began attacking a hill about 700 meters high. By early afternoon on the day of the attack, the following operations were going on simultaneously in the FSCC of the 674th Airborne Field Artillery Battalion—the direct support battalion of the 187th:

- The FOs were adjusting close support missions fired by the direct support battalion
- The air OP of the 674th Airborne Field Artillery was adjusting the 8-inch howitzers of the 17th Field Artillery on some 76mm guns on counterbattery missions. To execute these missions, the air OP sent fire commands to the liaison officer from the 17th FA at the 674th FSCC. The liaison officer then phoned them to the 17th FA FDC.
- The TACPs with the rifle battalions were controlling close support fighter strikes
- An F-80 pilot who had fired all his ammunition was orbiting over the battlefield and noticed approximately a company of enemy soldiers attempting to withdraw down the north slope of the hill. This pilot radioed fire commands to the TACP at the FSCC where a liaison officer from a 155mm howitzer battalion phoned them on to his battalion and a successful attack was made on the target.
- The mosquito aircraft was being controlled by the artillery S2 and the S3 air to provide deep observation coverage of the battlefield
- The S3 air and the artillery S3 were continuously estimating the need for additional air support and requesting it from JOC.

ONLY in training can the units concerned get to know and put their confidence in the FSCC as an excellent means to control those fires that the infantry and armor must have. The chart on this page, "Blueprint for Training," suggests steps to be taken to make the FSCC an instrument for so controlling and directing fire power that our Army will dominate any battleground on which it is sent to fight.

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Sandbagged M55 quad .50 machine guns in Korea during the summer of 1950.

AA MAKES THE TEAM

LIEUTENANT COLONEL RICHARD W. OWEN

FOUR days after the North Korean Army crossed the 38th parallel three AA officers and thirty-two men equipped with four M55s, quadruple caliber .50 machine guns, arrived at Suwon airstrip and hurriedly established defensive positions.

They had little time to wait. At 1615, four enemy planes appeared, looking for all the world like U. S. Mustangs. In a matter of seconds the enemy came in at about 1400 feet over the runway. They made four passes, dropping three medium-light bombs and strafed the field.

The quad fifties opened up and one Red plane crashed beyond the field. Another, obviously crippled, limped north, losing altitude on the way. Thus, first blood to be drawn by the U. S. Army in Korea can be credited to Captain Frank J. McCabe and his hastily assembled detachment of antiaircraftsmen.

The machine gun crews did not es-

. . . an Antiaircraft Artillery detachment spearheaded the Army combat units committed to action in Korea.

ANTIAIRCRAFT JOURNAL
September-October 1950.

LIEUTENANT COLONEL RICHARD W. OWEN, Artillery, recently completed a four-year tour as Associate Editor of the *Antiaircraft Journal*. In World War II he served in Europe as an AAA group executive and commanded an automatic weapons battalion.

cape unscathed in this, their first fight. Six Purple Hearts were awarded to Captain McCabe and five others who received superficial wounds in the few minutes that the action lasted.

This was a short-lived defense. Early the next day, 30 June, evacuation orders were received, the guns destroyed and the little unit moved south. They returned to Japan barely five days later to rejoin their battalion and prepare for the next phase.

IN the days to come it became apparent that antiaircraft artillery with its specialized weapons would fill an entirely different role than sweating out enemy air attacks. It was to become a powerful support weapon for infantry and field artillery. While some of the tactics and technique developed in the heartbreaking days when space was being traded for time, and the Pusan perimeter defense seemed a forlorn hope, actually the AAA had demonstrated their ground support potential from the jungles of the South Pacific to Africa, Normandy and the Battle for the Rhineland in World War II.

As the occupation troops in Japan were being shipped to the Korean front and divisions in the States were alerted and equipped for early departure, the hard pressed UN troops fighting desperately to stem the Red surge quickly recognized the effectiveness of so much fire power and welcomed the AAA gunners and their "meat choppers" with ever mounting enthusiasm.

The events that followed as they applied to the antiaircraft role were faithfully chronicled in the *Antiaircraft Journal* by Major General William F. Marquat, antiaircraft advisor on General MacArthur's Far Eastern staff, and heavily supplemented by action accounts from the Korean battle fronts.

FLEXIBILITY is the one outstanding characteristic of AAA. Its arsenal of weapons, its speed of transport and the devastating volume of accurate fire that can be brought to bear on enemy targets in the air and on the ground serve to justify the place it has earned in the infantry-armor-artillery combat team.

At no time since the beginning of hostilities in Korea has the primary mission of AAA been forgotten. While the Red air force, with Soviet-made planes, has at all times had the capability of posing a serious threat to the port of Pusan, to UN airfields in both forward and rear areas, and to any and all supply dumps and communications routes and centers, it has rarely directed air attacks against any of these vital installations. Despite this, AAA defenses have constantly been established and prepared for such attacks should they come.

The heavy action of AAA has been almost entirely with the combat divisions, furnishing fire support to field artillery and giving direct support to infantry in defensive and offensive roles.

In the earliest days, the accent was on the defensive. Such action involved the defense of river crossings, roads and defiles to protect the routes along which Eighth Army forces were giving ground. One of the most effective defense methods devised against enemy infiltration and enveloping tactics was the use made of antiaircraft artillery automatic weapons in a strong perimeter defense.

In one of the early articles in the *AA Journal,* Lieutenant Lowell H. Beilsmith reported:

> While with the FA batteries (one section per battery) our tracks performed frequent ground support missions. We pinned the enemy down, generally in defense, occasionally in support of both field artillery and infantry. We inflicted a great number of casualties on small and large groups of the enemy, especially when they made assaults upon the relatively vulnerable field artillery positions. We often killed Koreans within twenty yards of our tracks. We found a great need for outposts to protect our tracks from surprise. In one instance, an alert rifleman on outpost during dark hours, saved an M15 from surprise by three North Koreans dressed in civilian clothes. They were carrying new burp guns. We believe in twenty-four hours guards on the tracks and outposts at least a few yards from the tracks, even if only a lone rifleman.

Small wonder that the M15 half-track with its hard-hitting machine guns would be a prime target for enemy attack. The damage they were capable of inflicting upon the Communists caused them to be singled out for destruction at almost any sacrifice. The tracks, of course, were extremely vulnerable. The high silhouette and lack of protective armor for the gun crews, made them a favorable target for the Reds, and casualties were high among the exposed crew members.

As the Korean action progressed and reinforcements arrived to bolster the UN forces, antiaircraft units shook down to a method of operating that made them an integral part of the team. In his second report on "Automatic Artillery in Korea," in the January-February 1951 issue of the *AA Journal,* General Marquat wrote:

> No longer is there a need for selling the antiaircraft artillery in ground support roles. These troops have proved their worth in multifold instances in terrific combat in which they have suffered severe losses in relieving critical situations.



These were the first 90mm guns to go into action in Korea. The time: 16 September 1950; the place: near Taegu; the outfit: Battery C, 68th AAA Gun Battalion.

WHILE the half-tracks of the M15s and the M19s (twin 40mm on a light tank chassis) were churning up the dust of Korean roads and encountering other

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terrain difficulties such as rice paddies and rugged mountainsides, the 90mm guns were also contributing to enemy discomfort with their rapid rate of high-velocity fire.

The 10th AAA Group, under command of Colonel William H. Hennig, controlled all of the non-divisional antiaircraft units in Korea, served as a division artillery for the 1st ROK Division and functioned as AAA advisors on the staff of the Eighth Army Artillery and the Fifth Air Force—a variety of command and staff responsibilities never before encountered by a single group headquarters. Such a multiplicity of activities would normally accrue to a brigade or higher antiaircraft command. But in Korea the unorthodox was the general rule.

According to a periodic report from a 90mm gun battalion, received from Colonel Hennig and published in the *AA Journal,* the following is an account of an operation in support of the 1st ROK Division:

> The enemy, an estimated two divisions of Chinese Communists, launched a three-prong attack at 1715 hours. . . .
>
> The battalion expended 1,151 rounds of ammunition on 92 fire missions during the 24-hour period ending 1800 hours 1 November 1950, the period prior to the general attack. These fire missions consisted mainly of harassing and interdicting fire against the enemy and repulsing enemy cavalry charges estimated at one thousand strong.
>
> Between 1830 and 2320 1 November, this battalion expended 1,319 rounds on 75 fire missions. This averages a fire mission every three minutes and fifty-one seconds.

The terrific rate of ammunition expenditure posed another problem. These AAA units were normally supplied with basic loads of ammo computed at rates of fire to be expected in the few fleeting seconds when aerial targets are within range. To consume shells at the rates indicated in this and many another ground support shoot, placed a prodigious strain upon available transport to resupply the ammunition expended.

These and other problems involving maintenance of equipment in difficult terrain and weather were met and solutions were found, usually by the trial-and-error method of "field expedients."

The January 1953 issue of the Combat Forces Journal contained the article "Roadblock" by Major John C. Fralish, describing the action in which the 2d Infantry Division was furiously attacked on 25 November 1950. Lieutenant Colonel Walter Killilae, commander of the 82d AAA AW Battalion (SP), wrote a brief account of the action, particularly the AAA phase, in the March-April 1951 issue of the *Antiaircraft Journal.*

EARLY March of 1951 found the 21st AAA AW Battalion, commanded by Lieutenant Colonel Charles W. Henry, assigned to the 25th Infantry Division.



Self-propelled quad .50s and twin 40s of the 7th Division AA battalion near Yong Jon Ni in September 1950.

Unlike many other units with infantry divisions, the 21st was equipped solely with M16 half-tracks, mounting quad caliber .50 machine guns. The battalion's armament of sixty-four of these vehicles was capable of firing more than 140,000 rounds per minute. Colonel Henry had told his troops on the eve of their departure from Japan in January, "You are good antiaircraftsmen, and if you can shoot down a fast-moving airplane, you can shoot down anything!"

The battalion soon made these words good in a variety of missions in their ground role. One of the outstanding operations as reported in the July-August 1951 issue of the *Antiaircraft Journal* involved the Han River crossing of the 25th Division. To quote:

> There was no cover and our crews occupied positions during darkness the night before crossing. At H minus twenty, while darkness still obscured the far bank of the river, our guns joined the artillery in saturating predetermined sectors of the enemy shore. At H Hour the artillery lifted and the far shore became visible. As the assault troops crossed the river in boats, our guns delivered covering fire. After the infantry gained a beachhead, they fired on the flanks and at targets of opportunity.
>
> For the initial phase of the crossing all weapons were under regimental control. After ferries and bridges became available, our weapons reverted to infantry battalion control and joined tanks and infantry on the far shore to patrol forward to search out the enemy.
>
> Statistics for the battalion resulting from the river crossing were: 7-10 March: Enemy: 641 certified killed; 1,077 additional estimated killed; prisoners of war, seven; casualties sustained: wounded in action, three.

OF necessity, in presenting the AAA contribution to recent action in the field, we have paid scant attention to its primary mission; shooting down or driving off enemy aircraft.

Since recent experience in Korea has kept this activity to a minimum, there is little of interest to report on that side of the ledger. AAA weapons can and do man the defense of key installations.

This type of guard duty is of prime necessity in these anxious days of more or less cold war. In Korea, our AAA units rotate between antiaircraft defended installations and front-line positions where, within the limitations of the static warfare now being conducted, they engage in "bunker-busting" operations. The guns were well dug in and sited to bring fire upon Communist positions and break up Red troop concentrations.

Except in degree and in detail, all of the lessons learned in Korea in connection with the antiaircraft potential were demonstrated in World War II. The hedgerows of Normandy were liberally sprayed with AAA automatic weapons and the Germans used dual-purpose weapons for both antiaircraft and ground support. The much dreaded German 88 proved extremely effective in the two roles and their lighter caliber guns were used against low-flying planes and ground personnel interchangeably.

THE future of antiaircraft artillery holds an even greater fascination. So far no enemy of the United States has been subjected to the fire of the Skysweeper, the 75mm automatic antiaircraft gun. But we have this weapon today and battalions are being formed and trained at Fort Bliss to man this new and powerful gun.

In the guided missile field, the new antiaircraft rocket, the NIKE, promises to solve much of the AAA defense problem against high-speed jet bombers, and the artillery's newest long-range cannon, capable of firing shells with atomic warheads, has yet to be used against live targets.

THE AMMUNITION HEARINGS

Guns and/or Butter

Isn't it true that if we adopt, as national policy, the fact that we can have one hand full of fighting a war, and the other full of television sets and butter, then every time we find we are short of something we will just change over and put some of the butter into the production of military items? Wouldn't that be logical?—Senator W. Stuart Symington

A FEW pieces of testimony from the 75,000-word printed record of the hearings by the Senate Committee on Armed Services puts the whole controversy over the ammunition shortage in the Far East in perspective and sums it up nicely.

First, General Van Fleet on 5 March in response to a question by Senator Hunt of Wyoming said:

> There has been a serious shortage of ammunition ever since I have been in Korea; there has been a critical shortage at times. There is today a serious shortage of some items of ammunition, but not all, and I can go into the details of that with my proof later.

That statement established the basis for the hearings. But perspective was given on 10 March when General Collins and officials from the Pentagon testified. Here are a number of sentences from the opening statement by General Collins:

> . . . when considering the ammunition situation, responsible authorities in Washington must consider not only each military theater of operations but the global situation as well. . . . Most of our forces are in the Far East and Europe, but others are guarding vital outposts elsewhere throughout the world. The ammunition reserve stocks necessary, both overseas and in the United States, to back up these forces are of tremendous importance. . . . The fighting in Korea is, of course, of the gravest concern to all of us. However, any examination of ammunition supplies in Korea cannot be isolated from our ammunition supplies worldwide. . . .
>
> . . . the reserves of certain kinds of artillery ammunition in the Far East Command have not been as great as we would like to have had them during the past year and a half, even though Congress has appropriated all the money asked of it. Our difficulties are practically all traceable to the fact that we have been fighting a large-scale war in Korea in "peacetime."
>
> . . . Our problem has always been—and this has often been stated publicly—that we have not been able to build our ammunition reserve stockages to the point where we feel they should be. On the other hand, there has never been a shortage of ammunition in the hands of our troops, unless in some isolated instance because of local difficulties of distribution, either to repel an attack that actually developed or to conduct our own operations.

That the two generals were in essential agreement is clear when General Van Fleet stated later in the hearings:

> . . . there has always been an adequate supply of ammunition, including grenades and mortars, in the hands of the troops along the battle front. We keep that supply filled up regardless of how much there is in the rear, so that the man is always protected; and we authorized the lower units to shoot whatever it takes to save lives; but this critical level that we are talking about does exist in the Far East, and because the full supply is not there, it means the men at the

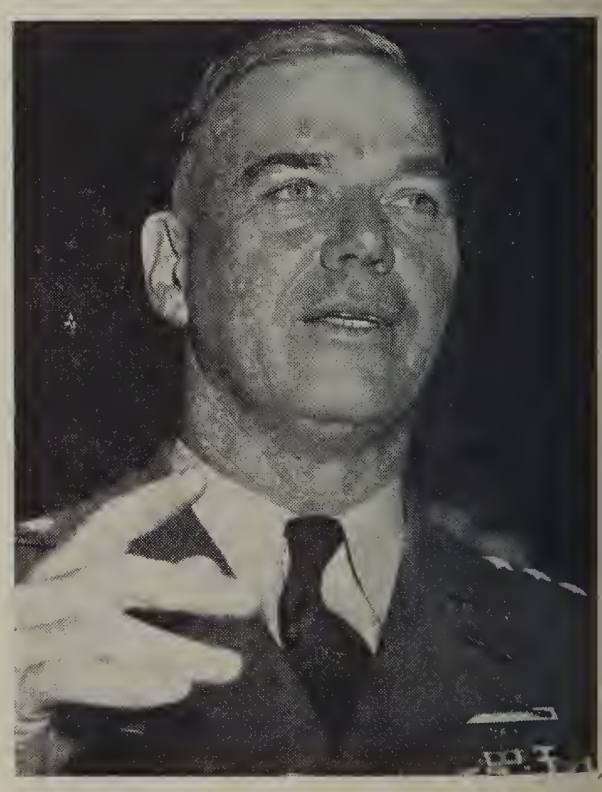


GENERAL J. LAWTON COLLINS

"We have been fighting a large-scale war in Korea in 'peacetime.'"

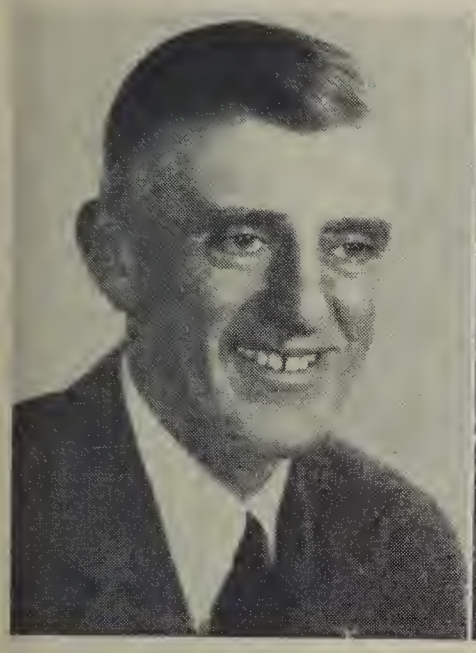
GENERAL JAMES A. VAN FLEET

"There has always been an adequate supply of ammunition, including grenades and mortars, in the hands of the troops along the battle front."

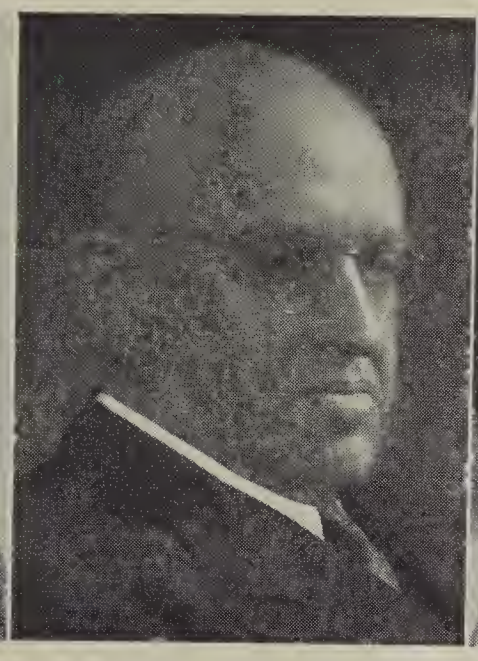


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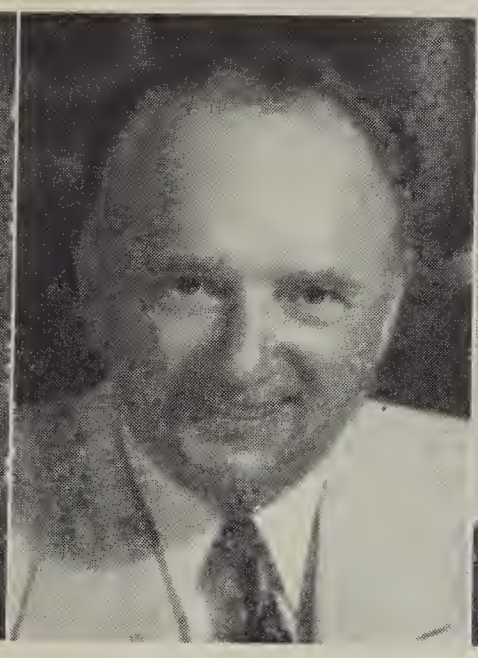
EIGHT MEMBERS OF THE SENATE ARMED SERVICES COMMITTEE



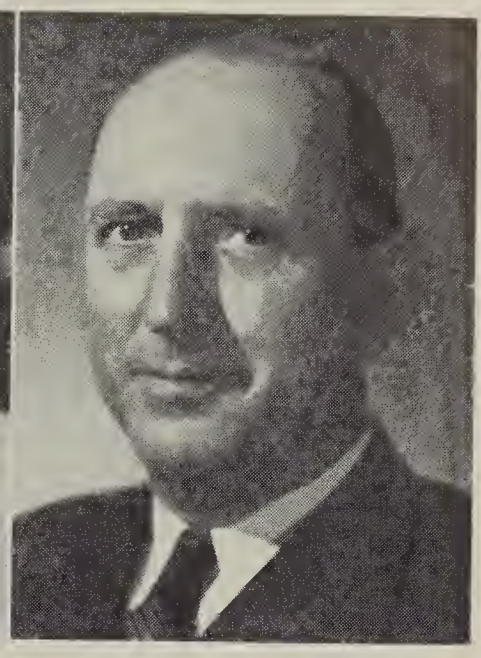
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SEN. RALPH E. FLANDERS



SEN. HARRY BYRD



SEN. RICHARD B. RUSSELL



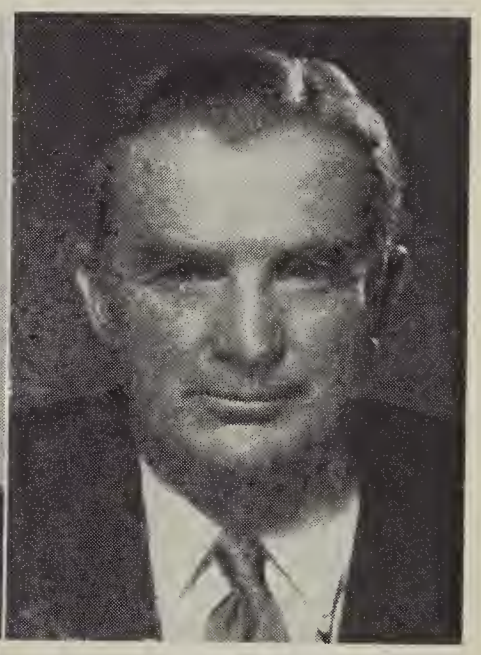
SEN. JOHN C. STENNIS



SEN. MARGARET CHASE SMITH



SEN. FRANCIS CASE



SEN. W. STUART SYMINGTON

front don't get an allowance to initiate other actions, merely a protective action to save themselves. They have to be in trouble in order to shoot. . . . So, I say that is a critical shortage that exists today, and there is not an adequate amount to take care of a situation that might develop.

To this General Collins replied:

I generally agree with General Van Fleet on that point; that is, our reserve stock levels are not what we want. . . .

The thing that we do not have is the stock levels back of the Eighth Army, but that is a different story than the business of—what have you got in the hands of the troops; and I am delighted that we now have in the record the statement that General Van Fleet has made. I think it is a most important statement, and I ask you . . . to please read it now.

Artillery war—of heavier calibers

THE record of the hearings makes it clear that the Korean war is, as General Van Fleet put it at one point, "an artillery battle [and an air war—as he said elsewhere] rather than an infantry battle, and that accounts for why we need to shoot more, and why we do shoot far more than the enemy does."

Both General Van Fleet and General Collins emphasized that we fire about six times as many shells as the enemy, despite the fact that the enemy has more guns than we have.

As General Van Fleet put it:

In the rate of fire we exceed the enemy; that is, from the tubes that we have, we get a greater performance from them because we have a greater supply of ammunition than the enemy. It is the only pressure we can put on the enemy.

Then, again, we have opportunities for the use of them which the enemy does not have. We have flexibility, we have observation, we have air observation, putting a liaison plane in the air that sees targets well behind enemy lines, targets of opportunity, men moving in the open, truck columns, which we can fire at, if we have the ammunition. The enemy does not have that advantage over us. He knows nothing except the front line and what he gets through spies.

In addition, we have targets which we get from photography. We get a complete coverage of the front by photography that will show you enemy installations and supply dumps; therefore, we take them under fire by both artillery and air, so we have a use for artillery, and are using it, and it is the main pressure that we put on the enemy at this time, and it has been for many months. Therefore, we are exploit-

ing such advantages as we have by having superior artillery, and means of employing it.

As to the amount of artillery being fired in Korea, General Collins reported:

> . . . during one operation over there, according to our reports, we fired in one operation that lasted a period of about three weeks, we fired a half million rounds of 105 ammunition in support of an operation that was essentially a battalion attack, a half million rounds.
>
> As our reserves fell off, and it became increasingly evident that the war in Korea was likely to be prolonged, it became necessary to exercise firm controls over the firing of ammunition through a system of allocation or rationing. But even with such a system in effect, let me illustrate the intensity with which the Korean conflict has raged. From June 1950 —when fighting began—to December 31, 1952, last December, we have fired against the Communists in Korea the following amounts of ammunition: More than 600,000 tons of 105-millimeter ammunition; more than 300,000 tons of 155-millimeter ammunition; more than 75,000 tons of 8-inch howitzer ammunition; more than 80,000 tons of 4.2-inch mortar ammunition; more than 55,000 tons of 81-millimeter mortar ammunition; more than 15,000 tons of 60-millimeter mortar ammunition; more than 8,000 tons of grenades.
>
> In addition, we have expended more than 1.8 billion rounds of small-arms ammunition.
>
> What do these figures mean? They mean that we have expended in Korea:
>
> Almost as much artillery ammunition as was shot during the whole of World War II in the Mediterranean and Pacific theaters of operation combined.
>
> Almost as much artillery ammunition as was expended in all theaters worldwide of World War II during 1944, the year when our operations were at their peak and expenditures were the heaviest.
>
> The tremendous amounts of ammunition which we actually fired have enabled us to outshoot the enemy through the war in Korea.

The chart on page 33, presented to the Committee by General Collins, shows the number of rounds of mortar and artillery fired by our forces and the enemy during 1952.

This chart does not show any comparison of the relative weights of the rounds fired by Eighth Army and the enemy, but General Collins later said: ". . . the caliber of our artillery and the caliber of our mortars generally speaking are heavier than those of the enemy. . . ."

This weight of rounds is important for, as General Van Fleet said:

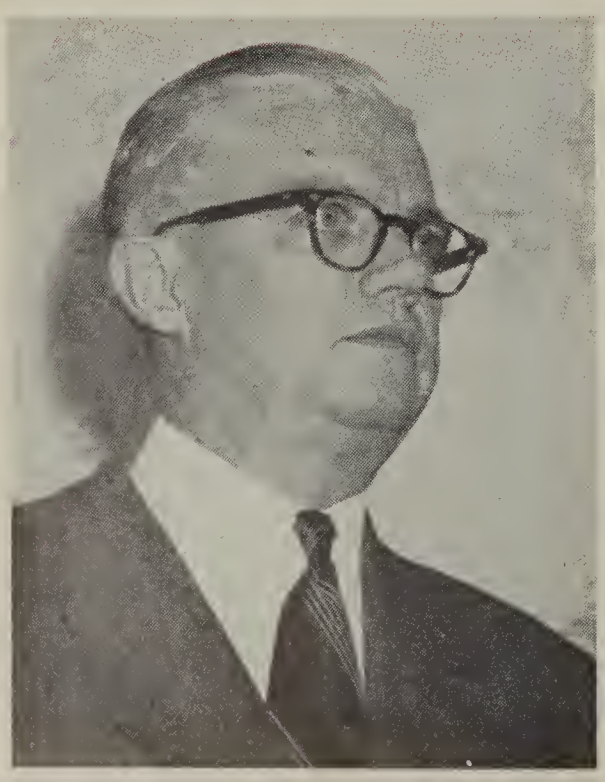
> . . . it is more difficult to destroy enemy artillery with our counterfire than it used to be in war, because this enemy is dug in. His artillery is in caves and it is scattered and it is more difficult to destroy. . . .

And General Collins:

> In open warfare the 105-millimeter is the one that is used. Very frankly, you can waste a lot of 105-millimeter ammunition now shooting at these deep dug bunkers, so what the troops over there now are doing is that they have got tanks that they put in what we call a defilade, just back of the brow of a hill, something of that sort, and that is why I pointed out this morning the expenditure of the 90-millimeter ammunition is really designed to hit tanks, but since tanks aren't prowling around, they are using those for direct fire.
>
> Also they are asking now for more and more heavier calibers of guns.

Some of the Senators asked whether the enemy build-up since June 1951 might have been halted had there been more artillery in Eighth Army. The question was posed by Senator Case and answered by both General Van Fleet and General Collins:

> Senator CASE. . . . as I understand, that [enemy] buildup has been accompanied by a digging in, and an entrenchment and development of bunkers and things like that which heavier use of ammunition might have interdicted; is that correct or not?
>
> General VAN FLEET. We would have destroyed more.
>
> Senator CASE. Would have destroyed more of the kind of buildup; with the troops and bringing in the supplies, and digging in, so to speak, so that he is in a relatively stronger position today than he was in August 1951?
>
> General VAN FLEET. That is right.
>
> Senator CASE. And you might have been able to prevent that had you not dictated restrictions on the use of ammunition.
>
> General VAN FLEET. Let me explain the war this way;
>
> The war that does the most damage to the enemy is from the air. It is an almost one-service war that goes on, air war, doing the damage to the enemy deep in his own territory.
>
> The Navy adds their air arm to that.
>
> The Army is merely maintaining their position.
>
> If the Army had been adequately supplied with ammunition, and could put a fire pressure on the enemy greater than

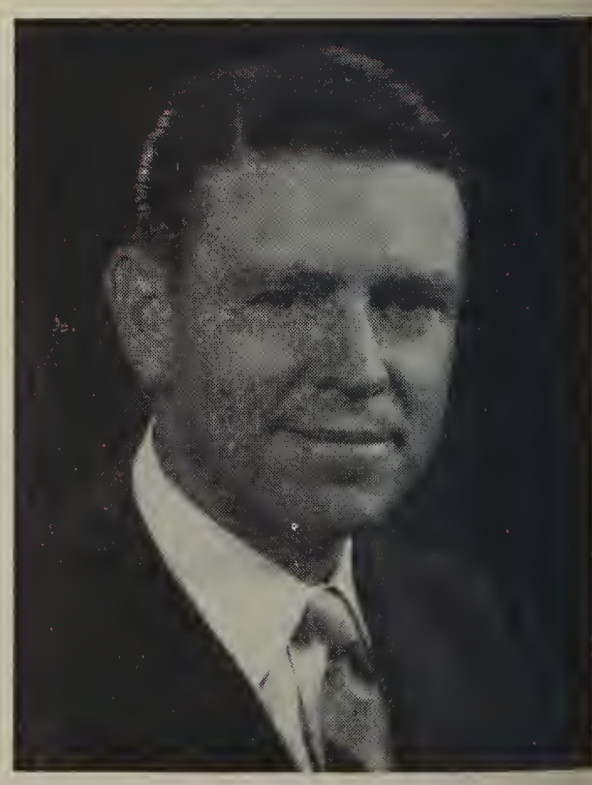


SECRETARY ROBERT B. STEVENS

"I just don't believe some elements of the manufacturing community have realized the seriousness of the situation."

ASSISTANT SECRETARY EARL D. JOHNSON

"It was necessary to compete against generally profitable civilian business without benefit of many of the controls and the driving urgencies of a wartime atmosphere."



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it does now, it would consume more of the enemy, the enemy supplies, create problems for him which, in turn, would help our air service.

In other words, the Army is not doing very much today to add to the success of the Air, sir.

Senator CASE. Which, in turn, might mean, to use the words of the other day, might make him more eager to have an armistice?

General VAN FLEET. The only pressure the Army can put on, without advancing, is firepower, and the firepower is not as much as I would like to see it.

Senator CASE. I think that is the question, and the answer I will leave to you.

General COLLINS. Mr. Chairman, may I answer this question?

This is a pretty important question that Senator Case has posed.

Chairman SALTONSTALL. Senator Case, will you please state the question again?

Senator CASE. I think General Collins has it in mind.

Chairman SALTONSTALL. All right.

General COLLINS. The question was, as I understand it—and if I am wrong, I would like to be corrected—whether or not the enemy, over the period of the armistice, of a year and a half, whether or not we could have prevented his build-up and digging in if we had more ammunition.

My answer is "No."

Now, why?

We have been trying to do it with the fighter-bombers and an overwhelming superiority of air, and we haven't achieved it.

Senator CASE. You don't blast them out?

General COLLINS. Senator, let me give you my answer now.

The enemy has to come all the way from the north of the Yalu. They have come down by train and by truck, but they also come marching across country.

If anybody tried to stop that kind of movement by artillery, there would not be enough money in the whole United States Treasury to stop it.

What we have been trying to do, of course, is to attack their railroad lines, and we have bombed them and we could bring you pictures to show where the rail lines have been cut over and over again by effective air bombing.

We have bombed their columns at night, but they are orientals and they are used to carrying stuff on their backs on an A-frame, and they take their time and they go like a procession of ants.

All the bombing that we have been able to do from our sea, from our ships, from our air, has not prevented that. Let me assure you that, in my judgment, the enemy would still have built up the way he has, no matter how much ammunition you would have shot at him.

Furthermore, he would still have dug in the way he did.

I could bring over here photographs that have been taken at the front, that show the beginning of the digging through a hill, of a battery of eight guns of artillery. These people work, and if you start shooting at them, they quit and take cover. Then, when you stop shooting at them—and you cannot shoot 24 hours a day, unless you want to expend the whole United States Treasury—they start digging again.

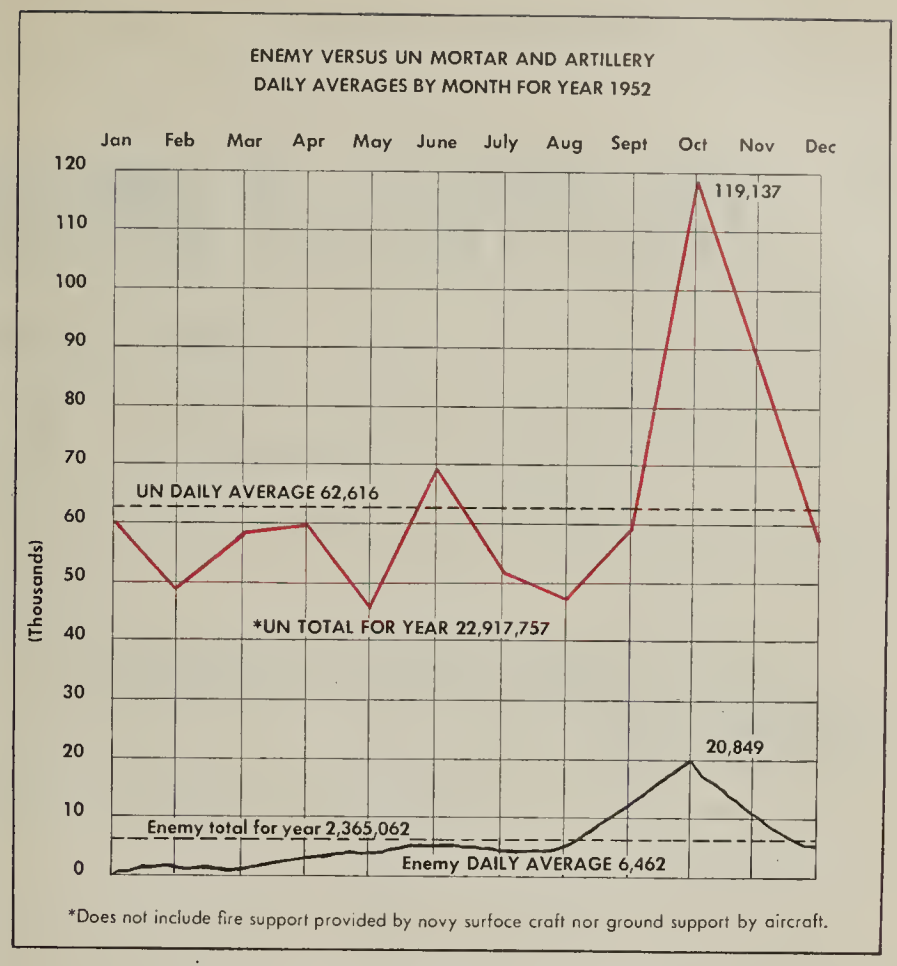
In my judgment, and I will stake my reputation on it as a military man, you could not have prevented the buildup of these forces, or prevented their being dug in unless you would have expended more ammunition than we could possibly produce even in American industry.

That is my judgment.

Infantry Weapons

GENERAL VAN FLEET told the Senators that he had always had plenty of small-arms ammunition but there had been shortages of 81mm mortar shells and hand grenades. Some of the Senators were quite indignant over the latter.

Senator Russell called it "amazing"; Senator Byrd was sarcastic: "it does not take much of a plant to make hand grenades, at $1.16 apiece"; Senator Symington said that "thousands upon thousands of machine shops in the United States would be delighted to get contracts for hand grenades";



We shoot more ammunition than the enemy

Senator Case was reported to have said it showed "a tragic lack of comprehension."

General Collins and General Van Fleet agreed that the number of hand grenades used in Korea was unprecedented. The ROK divisions use more of them than the U. S. divisions but both use them at a greater rate than in either of the World Wars. One division used 7,000 grenades in one day in repelling an attack, General Collins reported. During the heavy fighting of last October so many grenades were used that reserve stocks grew low. But by the end of the year, General Van Fleet said, the stocks were again satisfactory.

Under Secretary of the Army Earl D. Johnson said there had been difficulties in rapid production of a "satisfactory fuse with precision timing," but that a new "electronic method of measuring the fuse quality . . . will greatly speed up production."

Money and Production

EVERY Pentagon official assured the Senators that the Congress had appropriated every cent for ammunition since 1950 that it had been asked for. This was reassuring for the Senators—especially Senator Byrd, it appeared—had been excited over General Van Fleet's testimony that "some staff officers out of Washington" had told him that part of the ammunition difficulty had been "lack of appropriations."

General Collins, especially, emphasized this point, but it was also brought out that the funds requested for ammunition by the Army were less than the amounts finally requested by the President. Army requests are, of course, subject to revision in the Department of Defense and the Bureau of the Budget.

The amount of money appropriated and available for ammunition for the Army since the beginning of the Korean conflict was established as being $6.7 billion. Of this the Army has obligated $5.8 billion.

Deliveries of ammunition up to the time of the hearings

(Continued on page 35)

The Price of Military Characteristics

Major Robert H. Clagett

To get what they want in a piece of gear the combat arms find that they may have to trade away something else

AN ideal military rifle should weigh no more than four pounds (four and one-half with bayonet). It should be capable of accurate fire to a range of 2,000 yards. The ammunition should weigh about one pound per hundred rounds. Sights should be capable of day and night fire (night ranges not required to exceed 300 yards). Both rifle and ammunition should be capable of arctic, tropic, jungle, desert, and temperate operation. (Up to 100 per cent humidity from –80 degrees F. to 150 degrees F.)

These, in parody, are the MCs (Military Characteristics) of modern military equipment. If you have been in the never-never land of research and development chasing such a will-o'-the-wisp as outlined above, you soon learn to evaluate such things and develop a realistic attitude.

Part of this attitude is the realization that development never catches up. The result is that interim MCs are prescribed which are also difficult of achievement, though less rigid.

Secondly, you discover that certain characteristics naturally compete with one another and the achievement of the one defies the other. In other words, you must trade one for the other in order to make any progress at all.

The "prices" involved in this trading are fixed by the laws of physics, the greatest OPS of them all, and these laws deny all appeals. The "prices" usually follow a simple precept: lightness and simplicity can be bought only at the expense of durability and performance.

TAKE a rifle, for example, since that was our starting point. Say the MCs specify a 20-round magazine in order to get greater sustained fire capabilities. But further they specify that the rifle, accessories and 160 rounds of ammunition shall weigh less than the M1 rifle similarly supported. Accessories such as bayonets, grenade launchers, flash hiders, cleaning devices, etc., all weigh about the same for any rifle; very little weight can be saved on them. Most 20-round magazines weigh from .4 to .5 pounds each. For 160 rounds of ammunition this means a weight increase of 3.6 to 4.0 pounds in the rifleman's combat load of magazines. The clip for an M1 rifle weighs .07 pounds; the twenty clips required for 160 rounds weigh only 1.4 pounds. This means a weight differential in clips and magazines of from 2.2 to 2.6 pounds in favor of the M1. Should we be able to save one pound in the weight of 160 rounds of unclipped ammunition for the new rifle, we are then faced with getting the new rifle lighter by 1.2 to 1.6 pounds before it can even tie the M1 in our second characteristic.

This only means that performance (greater sustained fire capability) is in direct competition with weight (a lighter combat load).

Do we want the sustained fire characteristic or the lightweight characteristic? We can have either, but not both. The trade is up to us, not to Ordnance.

Another example can be shown in the competition between slower rates of fire for automatic weapons and decreased weight. About the only way to reduce rates of fire in such weapons is to increase the inertia of their moving parts, and that means pounds.

In search of a better pistol for service use, suppose the MCs were established, in general, to provide for a lighter weight than that of the M1911A1 service caliber .45. It would be expected to have the stopping power and lethality of the present weapon.

Looking at stopping power we know that this characteristic is a function of the mass of the bullet times the square of its velocity on striking the target; that is to say, the bullet's terminal energy. Now, Sir Isaac Newton long ago showed us that every action must have an equal, opposite reaction. If the terminal energy is sufficient to stop a man, the weight of the pistol must be sufficient to handle that much energy in the opposite direction. If it is too light you will have excessive recoil.

In the matter of sights for direct fire weapons, the battle of simplicity versus performance reaches a peak. The only simple sights for these weapons are fixed iron sights; however, they are effective

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only at one range and cannot be zeroed or corrected for windage. Add range settings and windage adjustments and you get a combination of threads, ratchets, ramps, and levers. Use telescopes and you get fragility and complicated mounts and adjustments. The sight for any direct-fire weapon must of necessity be a compromise between simplicity and accuracy.

CLEARLY there is keen competition between various MCs in all our equipment development programs. Then why present this article in a service journal that is not representative of one of the technical services? The answer is that we, the using arms, write the MCs and ultimately must accept or reject the equipment presented us by the services. We must learn the art of trading. We must trade the less urgently required characteristics for the ones we need more. If we want lightweight equipment then let us tell the developing and procuring agencies what we are willing to trade to get it.

Naturally when we write MCs, we must do more than describe already achieved equipment and more than demand immediately attainable results. If we did only that there would be no progress. MCs must represent goals for development. Our trading is done more in the fields of relative desirability of different MCs and acceptance of items that fall short of the goals but still represent real progress.

The principles involved in this type of trading are about the same as those for a kid with one penny in a candy store (well, it was a penny in my day—takes at least a dime now). All we have to do is make up our minds. Of course, the kid can sneak out of the decision by saving his penny and maybe later someone will give him a candy store. Like a kid in such a situation, we may have to wait a long time for our heart's desire.

THE AMMUNITION HEARINGS

(Continued from page 33)

were reported to be $2.8 billion. It was explained that some of the contracts call for deliveries into 1956. Colonel Medaris of the Ordnance Corps testified that Ordnance believes contracts for the production of ammunition "should extend over a twelve-month period" and that "under present conditions it seems most desirable and our contractors feel that it is essential, that they be given orders that will assure them continued production for an optimum period of time."

He said that it can take as long as eighteen months from the time Ordnance receives a new appropriation until the first production is delivered.

All the Pentagon officials agreed that there had been mistakes made in the ammunition program. The basic difficulty had been in getting production rolling at a time when civilian goods were being manufactured and consumed at high levels. The machine tool shortage had probably been most damaging to the rapid production of ammunition. The 1952 steel strike had had some effect on production, how much was controversial. Ordnance had made steel shell casings in World War II but not enough to get out all of the bugs in the process and it wasn't until after the Korean demands became heavy that Ordnance learned that the steel required an additional heat-treating process.

Secretary Stevens said "I just don't believe that some elements of the manufacturing community have realized the seriousness of the situation." If they did, and he saw it as one of his jobs to make them realize it, "we can accomplish a whole lot more along this line."

Senator Symington seemed to agree with the new Secretary of the Army. Indeed he summed up the hearings more cogently and realistically than anyone:

> It is a fact that, regardless of personalities, which I think we better leave out—it is a fact that in 1951 we were told we could have all the defense necessary, and our high standards of living, at the same time. That is on the record, and it is specific.
>
> We were also told at that time we had enough machine tools, incidentally, which a year later became our worst bottleneck.
>
> It doesn't seem to me we have to defend people. Those are the facts.
>
> I am glad to hear what [Under] Secretary Johnson said. He believes we will have to cut down on the civilian economy.
>
> With all due respect to General Collins, for whom I have great respect, questions have been asked him, and he has answered them.
>
> Questions have been asked General Van Fleet, and he has answered them.
>
> My impression is the ammunition is now in good shape. My impression is based on everybody's testimony that the ammunition situation was not in good shape at one point. As General Van Fleet says, it was not in good shape.
>
> We cut the Army to pieces; we cut the Navy to pieces; and cut the Air Force to pieces.
>
> It doesn't seem to me we have to blame anybody. Those are the facts. That was done, regardless of who was responsible for it; and now we are doing our best to build back the strength of the United States.

The Committee didn't blame anyone. But it said General Van Fleet had been "fully substantiated." And it appointed a sub-committee, headed by Senator Margaret Chase Smith, to probe the condition of U. S. ammunition "worldwide" and to "determine officials and conditions responsible" for the shortage in Korea. That sub-committee had not reported when we went to press.



FRONT AND CENTER

The planned public demonstrations of the NIKE guided missile have been cancelled in the interests, the press reports, of safeguarding national security. This is all to the good, for new weapons are surely something we should not be too blabber-mouthed about. But it seems odd that the demonstration was cancelled after many persons in official Washington had been oriented on what NIKE could do and shown pictures of it in flight. Indeed *Time* magazine obtained and published a picture of NIKE in the issue that was on the newsstands when the announcement was made of the cancellation of the demonstration.

✓ ✓ ✓

At least 60 per cent of the men evacuated from the front lines for psychiatric reasons are treated at battalion aid stations and returned to full duty. And 50 per cent of those evacuated as far as the division clearing station are returned to their units after treatment. But these figures can be reduced, the Surgeon General believes, by teaching company grade officers and noncoms how to detect battle exhaustion cases, and apply simple methods of treatment. The SGO is going to publish a full explanation of the Army's neuropsychiatric treatment techniques for distribution among the combat arms. Will the time come when the infantry officer or noncom is as proud of his certificate of proficiency as a neuropsychiatric aid man as he is of his Combat Infantryman Badge?

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The current trend in industry of sliding wage scales adjusted to cost-of-living indexes is much closer to the ancient adage that "a laborer is worthy of his hire" than the recent decision of the Secretary of Defense to oppose any pay raise for the services because of his laudable desire to reduce military spending. Certainly the military pay roll is a tremendous part of military spending, but the Secretary seems to have overlooked other factors. A worthy laborer certainly shouldn't have his "hire" determined by his employer's desire to save money, especially when the laborer is prohibited by law from leaving his employer. And certainly some of the Secretary's other problems, service morale, especially, can only be solved if a fair and honest pay scale is adopted. The Strauss Commission's recommendation that military pay be adjusted to the cost-of-living index certainly merits examination. If a fair and realistic sliding scale could be established it would be a great boon to services families, that have too often been penalized by political situations over which they had no control and which had nothing at all to do with the question of whether a raise in pay was or was not merited.

✓ ✓ ✓

A study of all of the services' tables of organization and equipment and similar manning schedules has been begun by Secretary of Defense Wilson in conformance to a directive of the Congress placed in last year's appropriation act. In ordering the study Mr. Wilson said that the examination should be made to establish service practices that conform to the "current situation" and the possibility that "this period of tension may continue for an indefinite period."

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A high-level examination of why career soldiers, sailors and airmen of all ranks are leaving the services is under way. General Bradley recommended the survey which is being conducted by Rear Adm. J. P. Womble, Director of Personnel Policy in the office of the Assistant Secretary of Defense for Manpower. The other members of the committee are Maj. Gen. Robert N. Young, the Army's G1, Rear Adm. J. F. Bolder, Dep. Chief of Naval Personnel; Maj. Gen. Morris J. Lee, Personnel Planning Director of the Air Force, and Brig. Gen. Nels H. Nelson, G1 of the Marine Corps. This committee will delve into all of the old and familiar complaints: low pay, poor housing, inability of families to accompany servicemen on foreign tours and the frequency of foreign tours, decreased medical and dental care of dependents, the reduction of post exchange and commissary services, uncertain promotion policies, and the lowering of disability, retirement and other benefits. Indeed the insistent whittling away at the tangible and intangible rewards of a service career has gone so far as to threaten the "progressive downgrading of the caliber of the Armed Forces"—to use the words of General Bradley.

✓ ✓ ✓

The Army has reclassified its aircraft to conform to the uses it has for them: **Fixed-wing.** *2-place observation for use by artillery in fire adjustment and for training and courier missions; 5-place utility type for general purpose transportation over short distances; 5-place, twin-engine type for long-range all-weather transportation of commanders and staffs of large headquarters.* **Rotary-wing.** *2-place small reconnaissance helicopter for front-line duty; 5- or 6-place utility helicopter for evacuation and transportation; 1½- 3- and 5-ton helicopters for cargo carrying.*

✓ ✓ ✓

The investigation of methods of improving the organization of the Department of Defense, by the Nelson A. Rockefeller committee, is expected to report to Mr. Wilson by the end of April but some of the critics of some of the members of the committee were shelling it before it even began to hold its hearings. Foremost of the critics are two Congressmen: Representatives Paul Shafer and James Van Zandt. They say the committee is part of an effort to "Prussianize" the Defense Department by establishing an "all powerful" general staff. Targets of their attack are General Bradley, former Secretary Robert Lovett, and Dr. Vannevar Bush, all of whom believe, they presume, that the Department of Defense must be strengthened by giving the Secretary of Defense a military staff and the Chairman of the JCS greater military authority. To what degree the Rockefeller committee will so recommend, if at all, couldn't possibly be known before the committee reports. So the gunfire is probably ranging rounds aimed at destroying any recommendations it may finally make.

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The Marine Corps is experimenting with quadrangular infantry units but won't announce any results until the study is completed late this year. The tests include adding a battalion to the infantry regiment and adding a rifle company to the battalion. The 3d Marine Division is conducting part of the tests, and its commander, Maj. Gen. Robert H. Pepper, is reported to have said that "the Marine Corps hopes to get more fire power with less money," without increasing the regiment's or division's supply and administrative strength. Not much criticism of the triangular concept is heard in the Army, but certain airborne soldiers have long contended that the airborne division, at least, should have four regiments. Maj. Gen. James Gavin was a foremost exponent of this at the Infantry Conference in 1944.

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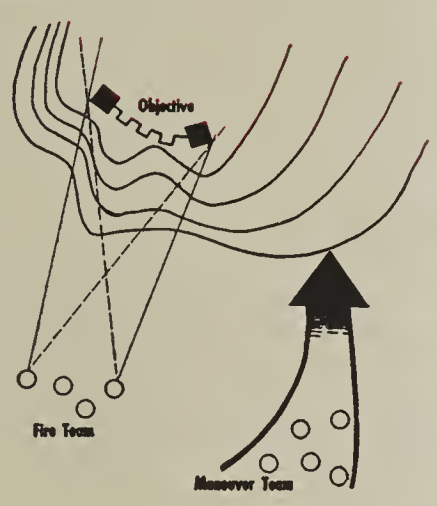
BATTLE DRILL

THE first part of this article, published last month, stressed the fact that Battle Drill is training that makes a unit, squad or platoon, work as a team, each member confident that members understand and will react to the signals or orders of their leader. Such confidence begets aggressiveness and initiative and brings victory on the battlefield.

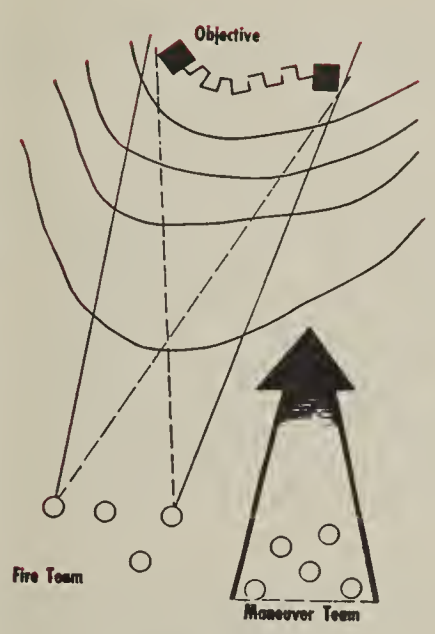
The number of maneuvers or "plays" performed by a small unit on the battlefield are limited and follow a pattern. This makes it possible to develop a number of fixed maneuvers that meet almost any combat situation.

Basic Squad Maneuvers

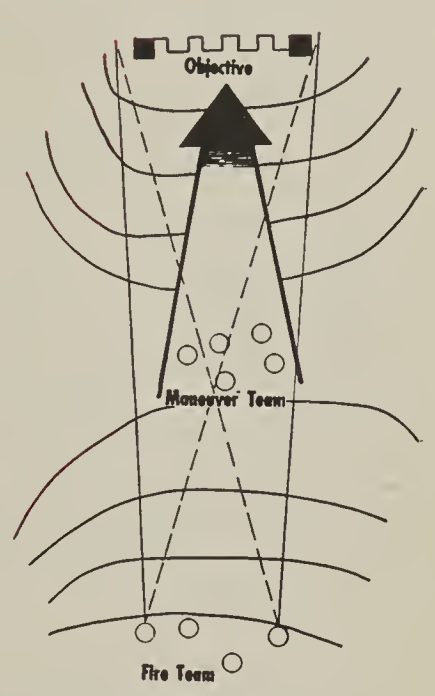
The basic maneuvers of a squad are: Frontal Attack, Frontal Attack (with overhead support), Maneuver Right, and Maneuver Left. All but Maneuver Left (which is essentially the same at Maneuver Right) are illustrated at the right.



Maneuver Right



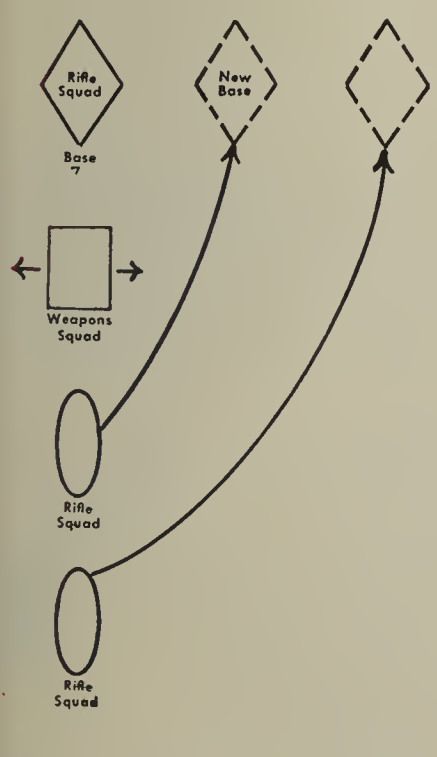
Frontal Attack



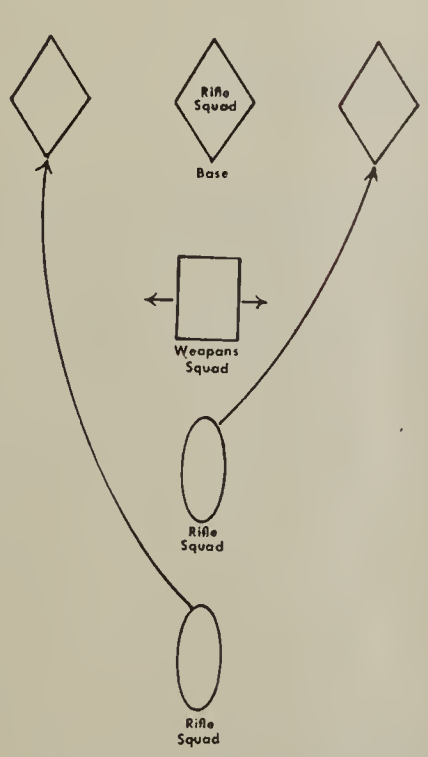
Frontal Attack (overhead support)

Platoon Maneuvers

The basic or fixed maneuvers of the platoon are Forward Attack, Maneuver Right, and Maneuver Left. All but Maneuver Left are illustrated below.



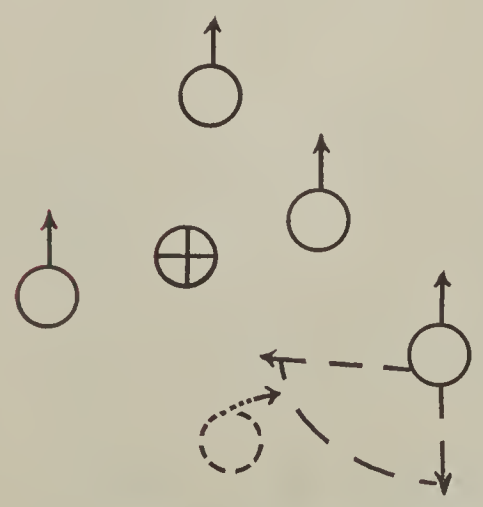
Platoon—Maneuver Right



Platoon—Forward or Attack Forward

Basic Patrol Maneuvers

Patrols vary in size but their maneuvers follow the pattern of squad and platoon maneuvers. There is a base of fire element and a maneuver element, just as in all squad and platoon maneuvers.



Five-man frontal attack

Training and Exercises

Battle Drill itself supplements basic squad, platoon and patrol training. The training method is familiar and consists of these three phases: explanation, demonstration and application.

The exercises described here are for the squad. But they are equally useful for rifle platoons and patrols of any size, if instructors are imaginative and thoroughly understand the requirements of battle drill and methods of teaching.

Squad Training

The squad is, of course, divided into fire and maneuver teams, which are interchangeable.

The squad first walks through the maneuver over open ground. This shows each man what he and each member of his squad are to do.

The fire support team is then taught to select ground for its base of action. During this phase the maneuver team follows the instruction so that it will better understand the work of the fire team.

The training of the maneuver team should be on ground suitable for teaching the elements of terrain appreciation and how to advance. The base of fire team follows this instruction. The maneuver team is taught to advance under cover when possible and to coordinate its final advance with full support of the fire team. When cover is not available the maneuver team must advance by fire and movement. This training must be thorough. One of the great mistakes in this training is to stress speed at the cost of a slower but surer pace. Battlefield casualties result when men plunge forward headlong when they could move slower and more safely. Individual speed is relatively important; the will to move and close with the enemy is all-important. A slow but steady forward movement should be stressed.

To achieve success the final assault phase must be practiced endlessly so that team leaders will gain confidence in their men and the members will be confident that they are correctly interpreting the intention of their leader. Smooth and instinctive cooperation of the fire team and the maneuver team is essential in this final phase. A properly trained squad can execute the final phase of an attack without benefit of orders or signals.

The first movement of the fire team leader is recognized as the signal of the ground from which the base of fire team will operate. A similar signal by the maneuver team leader tells the maneuver team the direction of movement and the route to be followed.

Exercises

Practical exercises for teaching Battle Drill are limited only by the imagination of instructors. But in every exercise correct methods, including timing, cooperation between members, correct use of the ground, and development of initiative, must be stressed, along with the development of an instinctive understanding by each man of what his fellow team members are going to do next. Only repeated drill can develop these qualities.

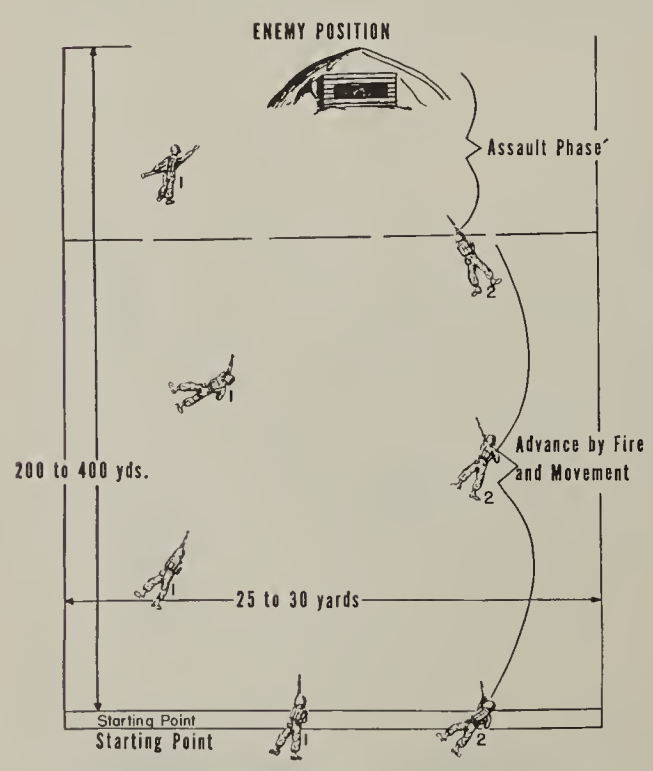


Figure 1. **How the two-man team maneuvers**

Exercise No. 1

In this exercise a two-man team works together over a prescribed course (*see Figure 1*). One man fires on the objective while the other rushes to a position nearer the enemy. He then takes up the fire and the second man advances to another position. In this way the men advance to grenade throwing distance from the objective. One man throws a grenade into the position and both rush it after the explosion.

Exercise No. 2

In this exercise three riflemen act as a team in the same way as the two-man team, described above.

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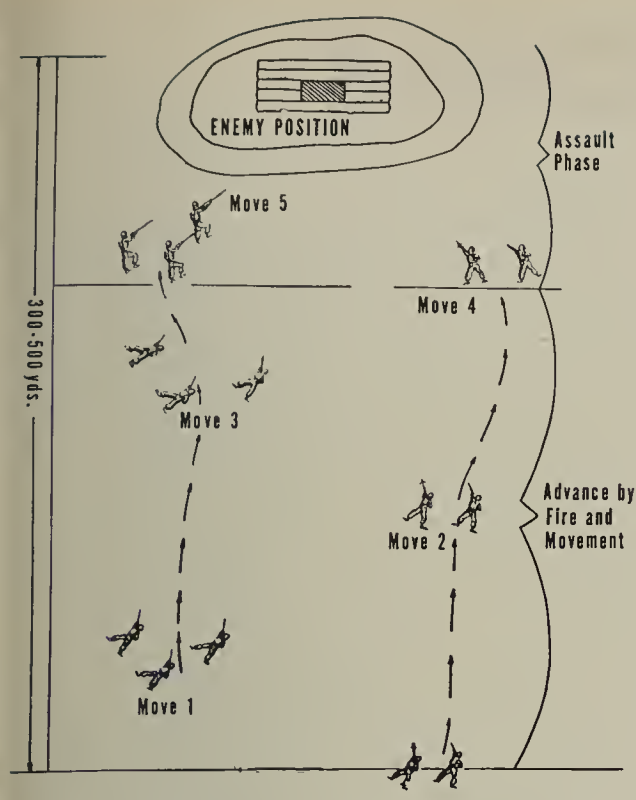


Figure 2. **How the five-man team maneuvers**

Exercise No. 3

This exercise has a three-man maneuver team and a two-man automatic rifle team. Using fire and movement, the teams leapfrog to a point near the objective. *(See Figure 2)* The fire team then covers the position with fire while the rifle team assaults the position.

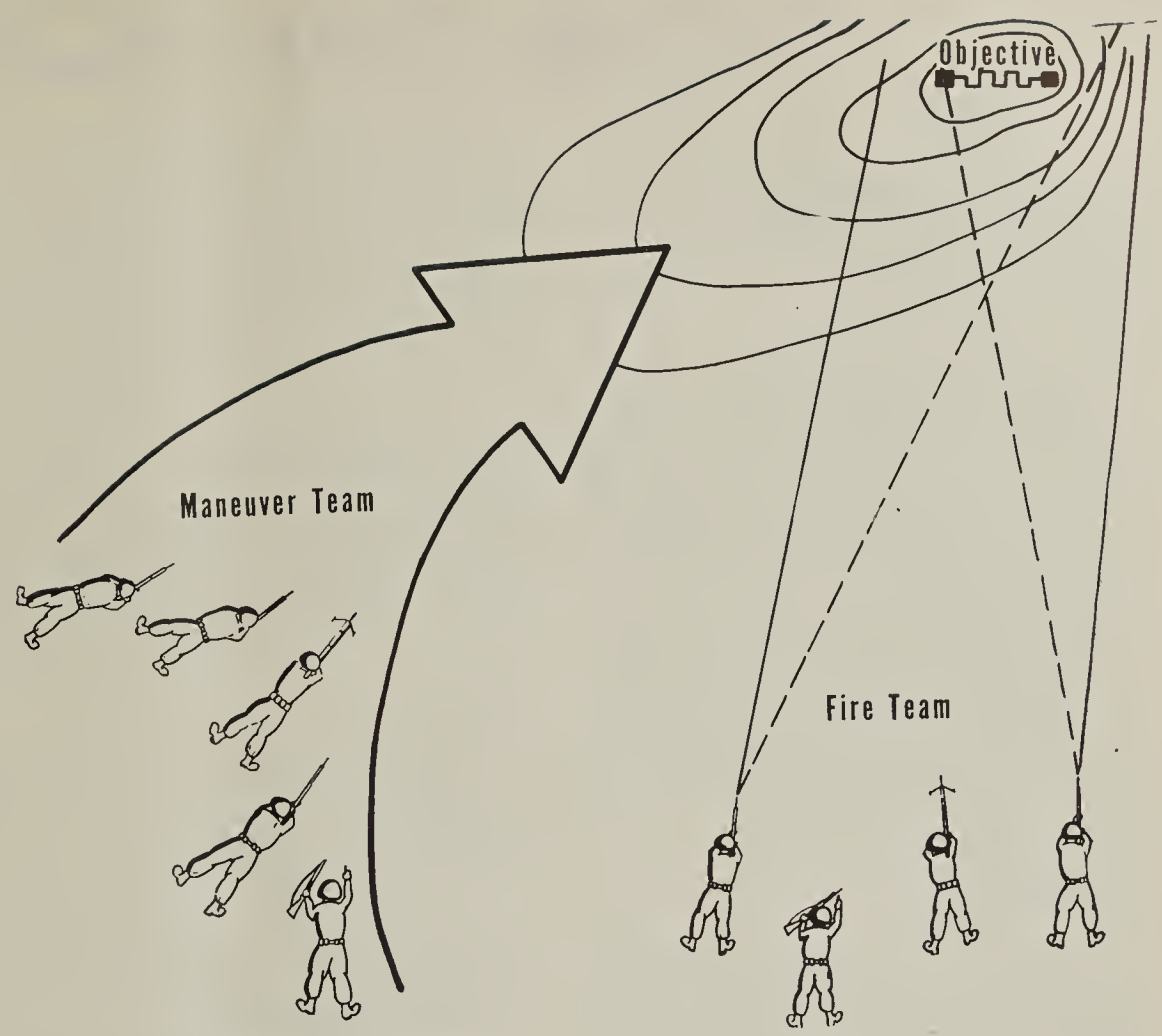
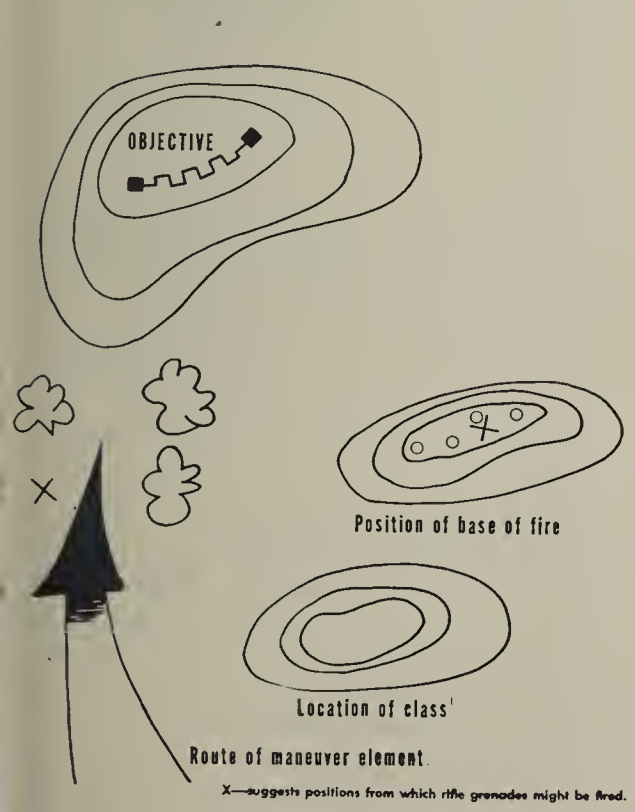


Figure 3. **How the nine-man squad maneuvers**

Exercise No. 4

This exercise consists of a number of squad problems that give application to squad plays, such as Attack Forward, Maneuver Right, and Maneuver Left. *Figure 3* shows the final phase of the movement on an objective. The fire team is covering the objective and its rear with fire while the maneuver team prepares to assault it.



Terrain appreciation

Terrain Appreciation

Any man can tell which side of a hill will give him the best cover; can see how a ditch gives him safety; how a shadow will hide his movement; how a bluff will stop his advance; how open ground is extremely dangerous. Terrain appreciation is all of these uncomplicated things but its principles must be taught through application and reiteration until every man understands and instinctively gets the best use from the ground over which he moves and fights.

Terrain appreciation can be taught through simple and practical methods. But to give each element its proper emphasis the instructor should constantly reiterate these five elements in terrain appreciation:

(1) Routes of approach
(2) Weak spots in enemy positions
(3) Suitable positions for base of fire
(4) Avenues for maneuver
(5) Alternate positions

The sketch at the left shows how a piece of ground can be used to illustrate to the class the elements of terrain appreciation. On arrival at the ground the instructor should develop the information through questions that lead individual members to select the various positions and routes of movement of the fire team and maneuver element. Other points that can be covered are possible alternate positions, and deceptive measures that might be used.

FROM THE SCHOOLS

THE INFANTRY SCHOOL

OCS at Benning

Fort Benning is training most of the Army's officer candidates now.

Training for infantry officers will be continued at Benning and the officer candidates from the armor, signal, ordnance, chemical, medical field service, quartermaster, finance, transportation, and provost marshal branches will be integrated with the infantry classes.

Under the new policy, all officer candidates will take the Infantry Officer Candidate course qualifying them as infantry officers. Those who are commissioned in one of the other branches will go to branch school for specialized training.

Arctic Warfare

To keep TIS abreast of the latest thought on arctic warfare six officers have been sent to the Army Arctic Indoctrination Field Exercise, 1953, at Big Delta, Alaska.

There they will study tactical operations in the Arctic, as well as problems of arctic survival. The latter will include such things as shelter, clothing and the use of equipment at extremely low temperatures.

14,650 Jump in 1952

Altogether 1840 officers and 12,810 enlisted men who completed the airborne course in 1952 made 74,705 parachute jumps without accident or injury.

In addition to U. S. soldiers there were representatives from other countries as well as from the Air Force and Marine Corps.

Three general officers, including Maj. Gen. Guy S. Meloy, Jr., Commandant of The Infantry Center, were among the graduates.

Additional Fire Power

The Department of the Army recently authorized one additional Browning Automatic Rifle, Cal. 30 M1918A2 for each nine-man infantry rifle squad in all infantry and airborne infantry regiments in the Zone of Interior. The issue is contingent upon availability.

The T/O&E change has also authorized promotion of one of the three Pfcs in the squad to corporal. The numbers five and six men in the squad will be BAR gunners.

ROTC Summer Camp

Plans are now being made for the 1953 Infantry ROTC Summer Camp scheduled for 20 June to 31 July at Fort Benning. Approximately 2,700 cadets from 60 or more colleges and universities in the Second, Third, Fourth, and part of the Fifth army areas are expected.

Squad Leaders

TIS is currently developing an eight-week squad leaders' course designed for selected graduates of training division leadership classes. Preliminary plans call for a new class to begin every month. The course will be directed toward developing better trained infantry squad leaders for overseas replacement. Students will be trained for MOS 1745 and 1812, Light and Heavy Weapons Infantrymen, respectively. On successful completion, graduates will be awarded MOSs with prefix R denoting supervisory level qualifications.

Economy

A way to economize on litters has been recommended by the Medical Company, 508th Airborne Regimental Combat Team at Fort Benning. In the past, litters were made useless when the tap, which holds the legs to the litter, fell off after hard use in the field. To prevent this, the Medical Company bored holes through the bolts that secure the legs to the litters and inserted a cotter pin through each bolt.

Night Training

A preliminary investigation was conducted at Fort Benning last month by the Human Resources Research Office into the techniques used in the training and teaching of the individual soldier in night vision and night training.

Dr. Frances E. Jones, of Training and Research Division of HUMRRO, plans a research project that may ultimately result in better night vision and shooting for the infantry soldier.

REUNIONS

24th Infantry Division. St. Louis. 14-16 August. For details write: J. Peyton, 131 N. Culver St., Baltimore.

Eighth Armored Division. Bellevue-Stratford Hotel, Philadelphia. 3-5 July. For details write: Henry B. Rothenberg, Room 1008, 33 N. LaSalle St., Chicago 2.

75th Infantry Division. Washington, D. C. 14-16 August. For details write: John D. McBurney, 5822 E. 14th St., Kansas City, Mo.

94th Infantry Division. Hotel New Yorker, New York City. 23-26 July. For details write: Bernard Frank, Reunion Chairman, Commonwealth Building, Allentown, Pa.

83rd Infantry Division. Hotel Hollenden, Cleveland. 20-22 Auters, 83d Inf. Div. Assoc., 1435 gust. For details write: Headquar-Clark Street, Pittsburgh 21.

Safety

A new parachute packing device used by the 508th Airborne Regimental Combat Team assures a quicker and safer way to pack reserve parachutes. Built from scrap materials, it has a metal tong which drops over the top of the packed nylon while the chute is being compressed, holding the parachute in place. A short arm, operated by a spring foot pedal, then clamps down one side flap and allows packers to insert the rip cord handle into its cones and close the three flaps faster.

The new machine increases the maximum daily output of the parachute maintenance section by nearly fifty percent. The portable device can be operated by three men and lessens chances of a malfunction by limiting physical handling, and avoiding manhandling twisted nylon.

THE ARTILLERY SCHOOL

TAS Teaches AN/GRC-26

The Communications Department has received five AN/GRC-26 radios for instructional purposes. This set, which will replace the SCR-399, offers the near ultimate in long-distance military communication and is ordinarily used for communications between command posts. It has a rated range of 250 miles for CW or teletype and 100 miles for voice operation. The power output is approximately 400 watts on teletype or CW and 300 watts on voice operation.

Summer Camp

More than 4,000 reservists, National Guardsmen, and ROTC cadets are expected to attend the five summer camps slated for Fort Sill this summer.

The tentative schedule and composition of the camps:

USAR Camp No. 2, 7-20 June—400 reservists.

USAR Schools Encampment, 12-26 July.

ROTC Summer Camp, 20-31 July—2,700 students representing every artillery ROTC unit in the United States, Hawaii, and Puerto Rico.

USAR Camp No. 10, 2-16 August—500 reservists.

National Guard Summer Camp, 16-29 August.

VHF Direction Finder

A very high frequency radio-direction finder set has been installed in the control tower at Fort Sill's Post Field. This radio direction finder will enable lost pilots to get a "steer" to Post Field. The set operates in the 100-156 megacycle range and presents electronically a visual indication of the direction from which an aircraft is

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calling. Within five seconds the tower operator can give the pilot a course to the field.

In addition to those of the SCR-399, the AN/GRC-26 has radio teletypewriter and relay capabilities. It consists of two receivers, radioteletype components, a transmitter, and teletypewriter equipment. The set is housed in a special shelter normally mounted on a 2½-ton truck. The components of the set are mounted either in compact, shock-mounted cabinets or in cases, and fit in the limited space available in the shelter. Power is supplied by a power unit mounted in a 1-ton, two-wheel cargo trailer which is towed by the vehicle carrying the shelter.

Study Red Weapons

A 120mm mortar and an 1895-6 model pack howitzer are being added to the foreign matériel available for study by students at TAS. These are part of a shipment of captured matériel sent here from Aberdeen Proving Ground. This shipment also includes other infantry and artillery weapons used by the Communist armies.

Atomic Warfare Instruction

TAS instruction in Atomic Warfare is keeping pace with the vast and rapid increases in knowledge on this new frontier. All classes receive a certain amount of this training. Appropriately, emphasis in the basic courses is placed upon individual and unit defense against atomic attack, and capabilities and effects of atomic weapons. In addition to these basic orientation subjects, the Regular Advanced Class receives instruction in tactical employment of the 280mm (atomic) gun, atomic fire planning, atomic intelligence and atomic target acquisition, and the effect of both friendly and enemy atomic capabilities on artillery tactics at battalion, division, and corps levels.

Although the newness of atomic warfare necessitates additional instruction for basic orientation, much of this requirement is absorbed by the integration of the atomic possibility into *all* instruction—just as the possibility of an air strike, for example, is always considered. It is emphasized that atomic warfare is not a mysterious, obscure, and dreadful possibility too difficult and technical for the field soldier to comprehend, but merely an integral part of every commander's estimate of the situation, SOP, and planning.

Accordingly, atomic "problems," in most cases, are not new and separate instructional periods, but only the insertion of an atomic capability into existing, standard problems and field exercises. This is in line with the TAS viewpoint that the atomic bomb is not an "absolute weapon" that throws all existing doctrine out the window, but simply another means of fire support that must be combined with maneuver and integrated with conventional principles, tactics, and weapons, to attain the traditional military objectives.

INFANTRY SCHOOL INSTRUCTIONAL MATERIAL

WEAPONS DEPARTMENT

Target Grid Method of Fire Control for 81mm Mortar: No. 1605. Organization and operation of the Fire Direction Center, use of the M10 Plotting Board for controlling 81mm mortar fires. 7 hours. 10¢

Rocket Launcher 3.5": No. 1221. Characteristics, demonstration firing; preparatory marksmanship; methods of instruction; boresighting launchers; practice tracking moving targets. Familiarization firing. 4 hours. 10¢

Technique of Fire, MG Cal. .30, and MG Cal. .50: No. 1370. Characteristics of fire; classes of fire; fire distribution; fire control; fire commands; overhead fire. 8 hours. 10¢

Mechanical Training, 57mm and 75mm Rifles: No. 1706. General data, nomenclature, disassembly and assembly; functioning; stoppages; immediate action. 6 hours. 10¢

TACTICAL DEPARTMENT

Rifle Company in Attack of River Line: No. 2156. Principles governing river crossing operations with emphasis on reconnaissance, selection of crossing sites and objectives, formations, organization of waves, security measures, use of supporting weapons, timing and execution. 4 hours. 50¢

Rifle Company in Attack: No. 2158. Principles of attack to include tactical employment of a rifle company; planning required by a rifle company commander for a daylight attack to include necessary coordination, plan of maneuver, and fire support plan followed by student participation in a practical exercise. 8 hours. 35¢

Flank Battalion in Attack: No. 2232. Principles applicable to flank units in offensive combat; a practical exercise illustrating the actions of a flank battalion in an attack of a hastily organized position. Flank security, including security against guerrilla and infiltration tactics, and formations peculiar to this type operation are emphasized. 6 hours. 30¢

Perimeter Defense: No. 2476-A. Tactical employment of the battalion with attached and supporting units in the organization of a perimeter defense. 1 hour. 10¢

Combat Formations, Rifle Squad and Platoon: No. 2002A. Organization and equipment of the rifle squad and platoon; combat formations and their tactical uses; combat drill. 1 hour. 10¢

Tank Company, Infantry Regiment in Attack: No. 2167. Organization and equipment of the regimental tank company, its mission, capabilities and limitations, and the tactical principles which govern its employment in the attack. The primary duties of the tank company commander, both as a commander and as a regimental staff officer. The general responsibilities of rifle unit leaders in connection with the employment of regimental tank company. A map exercise illustrating the employment of tank company with the regiment in a daylight attack. 2 hours. 50¢

Battlefield Illumination: No. 2253N. Principles and techniques governing the application of the means available for battlefield illumination, their capabilities and characteristics, the preparation and planning required for successful execution of an illumination plan. 2 hours. 20¢

Reinforced Tank Battalion, Infantry Division, in Attack: No. 2619A. Capabilities and employment of the tank battalion, infantry division. Emphasis placed on the employment of the tank battalion as a reinforced unit when attached to an infantry regiment to include planning, coordination, use of communication, organization for combat, formations, and conduct of the attack. 2 hours. 35¢

STAFF DEPARTMENT

Air Transported Operations: No. 6974. Staff planning aspects of an early link-up type airborne operation, based on the airborne regimental combat team, to include the personnel, intelligence, operations, logistical and pathfinder aspects of staff planning. 4 hours. 30¢

Preparation and Conduct of a Field Exercise, Infantry Battalion, Reinforced: No. 7230. Preparation by the regimental staff of a field exercise for an infantry battalion (reinforced) from the reconnaissance to the issuance of the training memorandum. 12 hours. 25¢

Irons in the Fire



Wood Truck Bodies

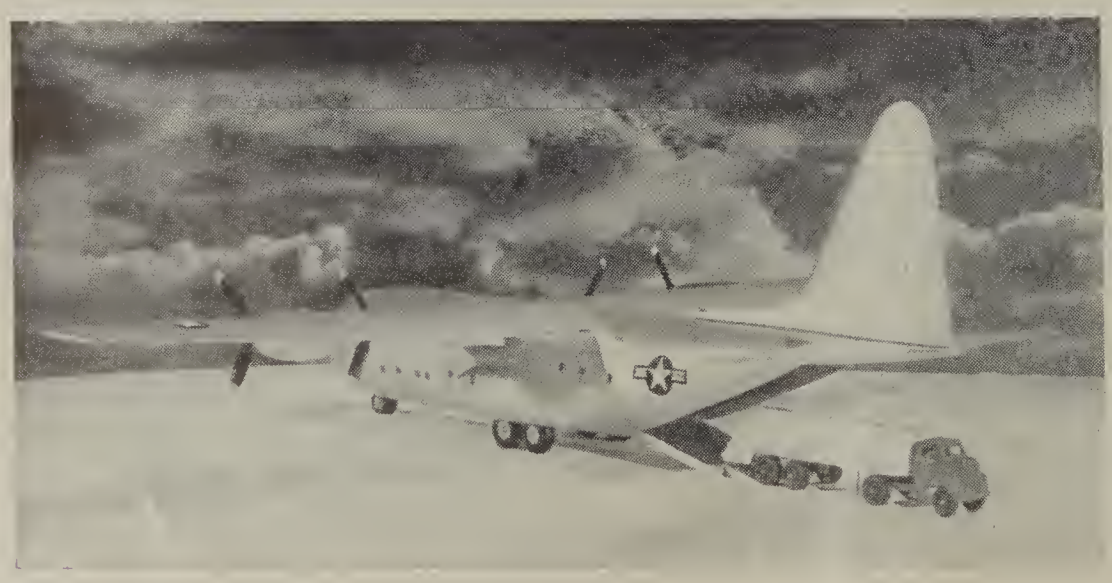
The Timber Engineering Company recently announced three new-type all-wood bodies for military trucks which will answer most of the shortcomings found in the million wooden truck bodies used during World War II. The new wood bodies are both stronger and lighter. The wood parts are impregnated with pentachlorophenol, eliminating problems resulting from fungus and decay. The adhesive used in bonding the wood is completely waterproof so as to prevent delamination regardless of weather conditions or immersion. The basic design is a continuous, U-shaped laminated frame combining the functions of bolsters and side-support members, eliminating the need for any mechanical joint between bottom and sides. A dimensional stabilizing chemical treatment minimizes shrinkage and swelling of wood.

Joint Arctic Tests

Communications and radar equipment is getting a rugged workout in the Arctic by teams of Canadian and U. S. Air Force experts. Purposes of the tests are to determine if especially designed equipment can stand the extreme Arctic temperatures and if certain electronic equipment designed and made in one country can be combined and operated with equipment made in another.

Turbo-Prop Freighter

Lockheed Aircraft Corp. has just released the details on a new turbo-prop air transport that will, it says, fly higher and faster than any of the current transports. Designated the C-130, it will be a four-engine plane, powered by Allison turbo-prop engines. A squat, low-slung plane with high wings, it will be big enough to carry a 155mm howitzer and a high speed tractor.



Sand and Swamp Tires



Watermelon-shaped tires with low air pressure (one and one-half to five pounds per square inch) have excellent maneuverability over swampy land and sandy beaches. Called the "Roligons" by the inventor, William H. Albee—the gentleman enjoying the pressure in the photograph—the new type tires are molded by the Goodyear Tire & Rubber Co., using one ply of rubberized fabric, topped by a quarter-inch layer of gum rubber tread stock.

Poncho Patch Kit

The Hughes Company of New York has developed a first-aid repair kit primarily for sportsmen and campers which may also be useful to soldiers. The kit contains 250 square inches of assorted patching materials, buffer and strong top-grade cement with brush applicator. The company claims it's just the thing to patch clothing, canvas, tents, ponchos, rubber, wood, plastics and leather.

Microwave Classes

General Electric has been conducting a series of month-long classes for Signal Corps technicians in the installation, operation and maintenance of microwave relay communications equipment. Microwave, which uses radar-like signals capable of carrying up to twenty-four conversations simultaneously, has wide military uses.

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★ BOOK REVIEWS ★

'THE DAMNEDEST BOOK'

THE ARMOR OF ORGANIZATION. By Alvin Brown. Hibbert Printing Company. 610 Pages; Index; $5.50.

The sub-title of this extraordinary book is "A Rational Plan of Organization for the Armed Forces, And, as a Preliminary Thereto, An Inquiry Into the Origins of Existing Military Organization." No subject could be more timely. Former Defense Secretary Robert A. Lovett, just before he turned over his job to Mr. Wilson, charged that the Department of Defense needs reorganizing and criticized the current Joint Chiefs' setup. Dr. Vannevar Bush, a respected commentator on military matters, he said at several places and times that he is convinced that the organization under which our military planning is done is faulty. And, as Mr. Brown points out in his book, we have invariably reorganized our military high command immediately after entering a war. (We have, strangely, also changed it again as soon as the war was over.) Obviously, the need for correct organization which will not have to be changed as soon as we are under the stresses of all-out war is vital.

Mr. Brown, "a financial executive in industry" according to the dust jacket of his book, is a student of organization who has written two previous books in that field. He says of himself: "It is unfortunate that those who live close to a problem often lose the ability to see its chief elements. My contact with military affairs, though perhaps somewhat greater than that of the average man, has not, I hope, exposed me to this handicap."

His book is divided into three parts: the first, a historical account of the development of military organization; the second, an analysis of present American organization and something of the history of its development; and finally the author's views as to an effective organization for the upper echelons of our armed forces.

The book is extraordinary on several counts. Its bulk alone is something to wonder at when considered as the presumably spare-time output of one individual, and one who is not a specialist in military affairs at that. Its scope, as has been indicated, is considerable and there is impressive evidence of wide research. This reviewer does not know the circumstances of the book's publication (not apparently by an established publishing house but by a printing company). This is itself an extraordinary circumstance. It is a first-class example of the bookmaker's art, incidentally.

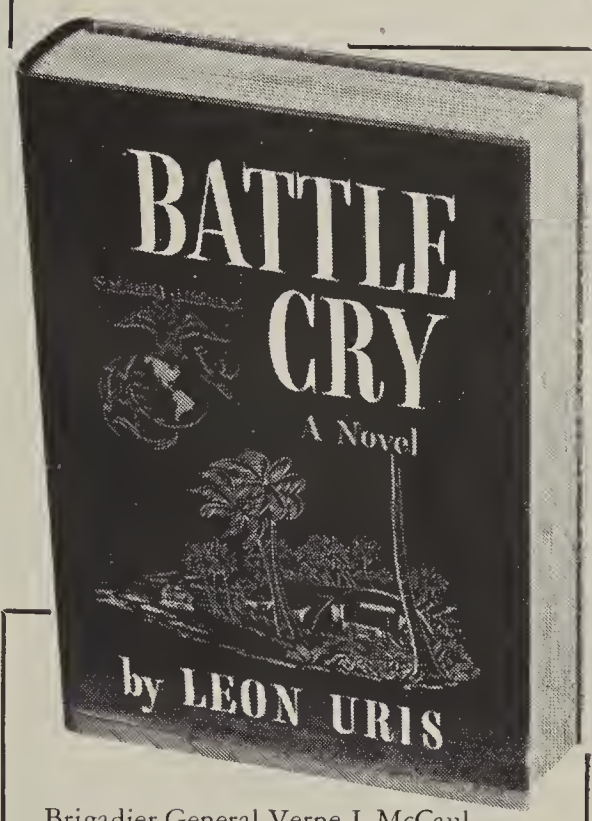
It is difficult to summarize within reasonable limits Mr. Brown's ideas. Although he says that "generally, the military thought on organization is fundamentally sound," there is little of current military organization, even officers and enlisted men as two separate categories, which remains in the author's "rational organization" of the country's defense setup. He claims much "misorganization" has existed and does exist, and that there are many errors of expression, of definition, and of precision in the "military formulation of organizational principle." He comments on the high command of World War II: "It is a trifle droll that, of the joint chiefs of staff, so-called —the committee that managed military operations—only one of the four was truly a staff officer, and that he had no staff of which to be chief. That one, of course, was the Chief of Staff to the President. The Chief of Staff of the Army was, in fact, . . . commander of the army. The other two committeemen were unequivocally titled Commander in Chief of the United States Fleet and Commanding General of the Army Air Forces."

Mr. Brown does not think that "any of the chiefs of services who want to gain or preserve autonomy are concerned about their relative rank or power." They have only a limited period of remaining active service, and are beyond the influences of personal ambition. Their "earnestness gives its own guarantee of integrity." Elsewhere, he says that "the fear that a man's original specialty will cling to him when he enters upon broader duties, and that his administration will be distorted by that bias is no more than a fear of inability to select the right man."

In the author's opinion the two fundamental errors in the military practice of organization are failure to delegate responsibility, and neglect to differentiate functions. Then by way of sixteen truths "that emerge from a study of the history of military organization" Mr. Brown comes up with a radical plan for reorganizing the armed forces. The President continues as Commander in Chief of the Armed Forces. The Secretary of Defense would be Deputy to the President and act in his stead to the extent the President desires. The Deputy Secretary of Defense, a "permanent member of the forces" but "not a military executive," would assist the Secretary and act in his stead in his absence. Then come nine "branches" each under a chief who, like the chiefs of sub-branches, will have a deputy chief "wherever a responsibility requires." These "branches" would be: Program, Personnel, Development, Procurement (and construction), Transportation (and communication), Training, Combat, Inspection, and Service. The Army, Navy and Air Force are out of the picture as separate entities.

"Men," says Mr. Brown, "do not easily question the truth of notions they have accepted all their lives." Nor will military men easily accept such a drastic upheaval of organization and method as he suggests, particularly when he is often misinformed

Sure it's got guts
. . . Sure it's got gore
. . . but what it's
got most of is
GLORY!



Brigadier General Verne J. McCaul, Director, Division of Public Information, U. S. Marine Corps, says:

"BATTLE CRY depicts marines accurately and effectively. It is the finest novel I have yet seen dealing with World War II."

BATTLE CRY is tough and ugly and brutal and funny—very funny and deeply moving all at the same time. You won't be able to forget this outfit known as Huxley's Whores—you'll laugh with them, gripe with them, weep for them, follow them to hell and back.
LEON M. URIS knows his marines. A Pfc., he served as a radio operator with the Second Marine Division at Guadalcanal and Tarawa during World War II. He writes with pride, with spirit, with realism, and with a great narrative talent. Every one of the 512 pages of BATTLE CRY has an authentic ring. Published by G. P. Putnam's Sons.

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☐ **SOVIET STAFF OFFICER** by Ivan Krylov. Captain Krylov was a Red Army Staff Officer and his book covers the period between May, 1940 and May, 1945. His career was very checkered. At one time, after having enjoyed the confidence of Voroshilov, and many of the high officials of the Army, the Politburo, and on one occasion Stalin himself, he was demoted to sergeant for having revealed the contents of a secret document. $3.75

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and makes statements which do not jibe with the reader's experience: "a staff is a committee," for example, and "the late war was conducted with complete disregard of the principle of unity of command."

What, then, is the value of the book for the military man? The answer is that here is a fresh viewpoint, an honest searching into many matters that we take for granted, and an irritant which should discourage acceptance of *status quo* just because "that's the way we've always done it."

On the other hand, it must be admitted that this is a hard book to read because the author goes up many side alleys and gets involved in too much minutiae not of organization but of theory, philosophy, and semantics. It is reasonable to prophesy that some military men will sum up the book in a phrase: "That's the damnedest book I've ever read!"—Major General H. W. Blakeley

THE WOUNDED AND THEIR MEDICS

BACK DOWN THE RIDGE. By W. L. White. Harcourt, Brace & Company. 182 Pages; $3.00.

Back Down the Ridge is about what you'd expect it to be from the title—the story of the men who get carried back down the ridge and what happens to them from there. It is their story in spite of the fact, White says, that he did not originally intend it to be theirs.

As a matter of fact, the book is packed full of excellent material on the Army medical setup in Korea with special attention to the Mash, or Mobile Army Surgical Hospital. This is the surgical unit which backstops each division engaged with the enemy, sorts out the wounded into groups which can be passed safely back down the evacuation chain and those who have to have immediate surgery if they are to live at all, and performs the necessary surgery. It can also pack up and run in either direction on about four hours' notice, and has apparently replaced the more cumbersome Evac Hospitals you may remember from World War II.

The author covers very well indeed the entire medical setup, from the aid man with the company to Walter Reed Army Medical Center. The Medical Corps may be proud of the results of Mr. White's reporting and the fighting man and his family encouraged by it.

But in telling the story of what happens to the wounded, the chief characters must necessarily be the wounded themselves. This is their book, too, and it is one more proof that the fighting man in Korea today is as good a soldier as we have ever put in the field.

We dislike quibbling as much as the next man, but we would like to remind Mr. White that "wounded" and "hit" are perfectly good English words and as such are preferable to "clobbered" and "clomped" which all of his wounded seemed to get. Otherwise, we salute him. —O.C.S.

SOUTH AFRICANS IN THE DESERT

CRISIS IN THE DESERT: May-July 1942. By J. A. I. Agar-Hamilton and L. C. F. Turner. Oxford University Press, 1952. 386 Pages; Illustrated; Maps; Index; $9.00.

This first volume in the official history of South African forces concerns the actions of the 1st and 2d Divisions and supporting units in the most critical portion of the fighting in the Western Desert. The period is the six weeks beginning 26 May 1942, and the area a strip never more than fifty miles from the Mediterranean—an area described by one German general as "the tactician's paradise and quartermaster's nightmare." The story begins with Rommel's onslaught on the northern Gazala line where the 1st Division was involved, through the 2d Division's heroic defense of Tobruk to its eventual capitulation. The 1st Division got through to fight again at El Alamein where Rommel was stopped in his attempt on Cairo.

Few war histories are as ably prepared as this one. These professional military historians evidently were allowed free rein. Documenting their account on a wealth of friendly and enemy official and personal accounts, they turn out a full, rich narrative spotted with skillful use of humor and criticism. There are fifteen superb fold-out color maps to amplify the twenty-two sketches. Being a record of the turning point of the North Africa campaign, it well serves as background material for the study of the November invasion.—N.J.A.

BONAPARTE AT ELBA

WHY WATERLOO? By A. P. Herbert. Doubleday and Co., 1953. 352 Pages; $4.00.

Why Waterloo? This looks like a question with an easy answer. What else could it be but the irresistible urge of the ex-emperor of the French who became the king of the few square miles of Elba, to regain freedom and power? But according to Mr. A. P. Herbert, the versatile British author, that answer is too simple. Look deeper; examine the record without prejudice; above all, *cherchez la femme,* and the answer is more subtle and possibly psychologically much sounder.

At all events, Mr. Herbert's documentary proof is pretty convincing. On the island of Elba, Napoleon became the frustrated husband and father, with a dominating longing for his wife, Marie-Louise, and his son, the King of Rome. As long as he could anticipate a reunion with his wife and son, he seemed to readjust surprisingly well to exile to his little kingdom. He organized a government and public works with all the air of a ruler with a long-range program. Discontent with his downfall was not apparent until his repeated efforts to have his family with him were thwarted. His father-in-law, the Austrian emperor, the other members of the coalition, and the weakness or indifference of Marie-Louise herself kept the family apart.

Marie-Louise, however, was not the only woman who has to be looked for in this

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period of Napoleon's life. There was also his sister Pauline who constantly reminded him of the disgraceful ignominy of his humiliating flight from Fontainebleau. Furthermore, his mistress, the Countess Maria Walewska, had shown her loyalty and affection for Napoleon by coming to the island with their son. The King of Elba, however, was expecting his wife, and quickly, but possibly reluctantly, sent them back to the mainland. This contrast between the wife and mistress is one of the striking characterizations of Mr. Herbert's book. Added to the influence of the women in his life on Napoleon's decision was the irritating espionage of the British Colonel, Sir Neil Campbell, and the denial of the privileges granted him by the Treaty of Fontainebleau.

History has mainly depended for its estimate of Napoleon at Elba on Colonel Campbell's evidence. Sir Alan has no difficulty in proving that Campbell is not a reliable witness. He feels that as a British author he should redress the balance of history that has been unjustly influenced by Campbell's prejudices. The resulting work of fictionalized biography is a most interesting and illuminating psychological study of Napoleon and of his momentous decision to return to France and Waterloo.—Brigadier General Donald Armstrong.

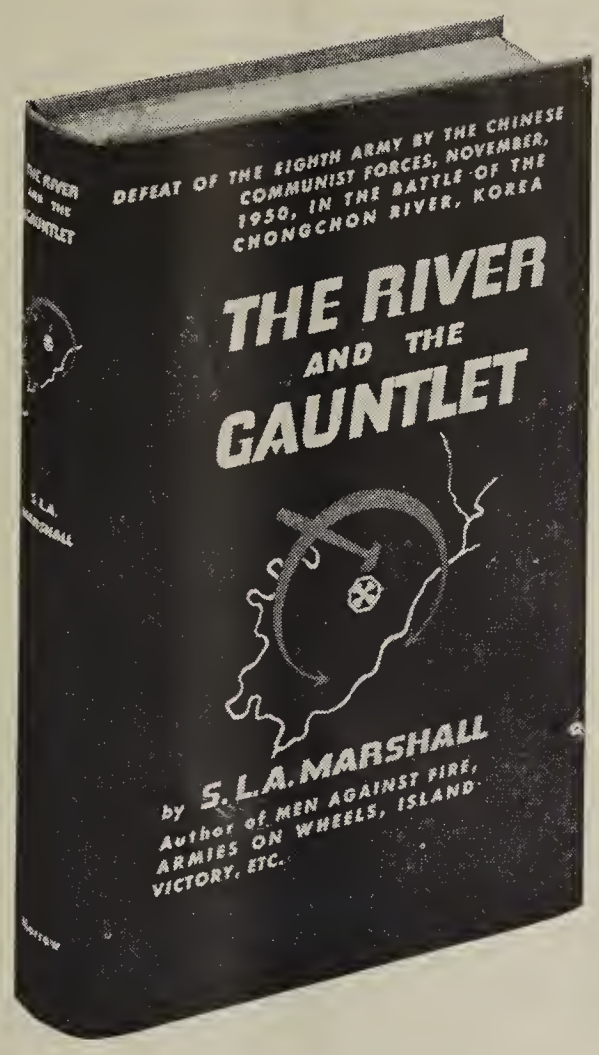
LIFE OF MITCHELL

MY BROTHER BILL: The Life of General "Billy" Mitchell. By Ruth Mitchell. Harcourt, Brace & Company, 1953. 344 Pages; $4.00.

From this book by a close relative we might have learned a great deal of Mitchell the man, if not of the theories he advocated. But disappointment comes early. A third of the book, obviously based on Mitchell's letters to the folks at home, covers sidelights in his tour as a young officer establishing depots in Alaska for the Chief Signal Officer (whose famous name is consistently misspelled). Mitchell as pioneer flyer and as our No. 1 airman in World War I takes exactly twenty-three pages, followed by fifty on the bombing demonstrations; twenty-two are devoted to the trial, and only four to his life after he resigned from the Army.

The truths and fallacies in Mitchell's theories have been thrashed out in detail by experts over the past thirty years, and are too well known to need restatement here. But this "life" clears up nothing that hasn't already been cleared; it is heavy with invective, half-truths, omissions and apparent reliance on memory rather than documentary sources.

A sample of the caustic treatment is this description of the "prosecutor" (trial judge advocate; also the author calls members of the court "judges"): "Lank, cadaverous, pale, with thinning wisps of hair, a cavernous mouth, and given to wetting his lips with a flickering tongue, he was already noted as a master of vituperative invective." Those numskulls who couldn't see Mitchell's way are lumped into "General



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Staff,". "West Pointers," "artillery," "cavalry," "disciplinarian."

As for being out of element in military matters, one quote is enough. As nearly as can be determined, it refers to the action at St. Mihiel, in the trench-warfare days: ". . . The great hero of this epic battle was Eddie Rickenbacker. He not only shot down aircraft, but by attacking the retreating German troops on the ground, their transport, artillery, and trucks, he caused the roads to be so piled up and choked, that large organizations of Germans, unable to get away, surrendered to our infantry rather than be shot to pieces from the air. It was the first time in all history that such a thing had been done." A feat, it might be added, never since duplicated.—N. J. ANTHONY.

FOR BASEMENT CRAFTSMEN

POWER TOOLS FOR THE HOME CRAFTSMAN. By Edwin G. Hamilton. McGraw-Hill Book Company. 277 Pages; Illustrated; Index; $4.95.

Hobby-shop work is not the private preserve of the enlisted man, despite the tone of the PIO publicity that appears in post and public newspapers. Many field officers have power tools in their basements and garages; we know of one colonel on duty in Washington who has more orders for furniture than he can fill on his present tour of duty. A lieutenant colonel we know bought himself a power saw, jointer, lathe and drill press and added several thousands of dollars to the value of his house. Polo is becoming a lost art; the conversation these days is about capacitator motors and the proper angles to sharpen anti-kickback saw blades.

All of which is by way of preamble to indicate that a book of this type, if properly done, would be the answer to a lot of prayers in the military service. Mr. Hamilton almost did it, but not quite. The author knows his subject but probably too well. All how-to-do-it books should be written by two men, one of whom knows his subject and the other to perform the duties of General John Sedgwick's staff officer, the anonymous gentleman who read all orders before publication because if he could understand them, anyone could understand them.

This book, with many illustrations, covers the circular saw, jointer, band saw, scroll saw, lathe, drill press, sanders, grinder, and shaper. The man who uses it will be better off than the man who doesn't because there is a lot of good dope here, and more about safety than is offered even in the manufacturer's instruction books. Information on how to choose power tools, and how to plan a workshop, is an added dividend.

The principal objection to the book is that the author assumes, in many places, too much knowledge on the part of the reader. He mentions jigs, but offers very little information about how to make them, and almost as little about how to use them. The illustrations, though good, are poorly identified and keyed with the text; this is more annoying than serious. The sudden appearance of technical terms, with no previous explanation and no glossary, is more serious. Probably the author and publisher knew all this and didn't dare add to the size of the book because it would have upped the price, which is considerable already. In any event, even though there could be a lot of improvement, this book is as good as any on the subject and is a valuable addition to the home workshop library.—A.S.

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WEST INDIAN HISTORY

LIBERATORS AND HEROES OF THE WEST INDIAN ISLANDS. By Marion F. Lansing. L. C. Page & Company. 294 Pages; Illustrated; Index; $4.00.

Although there is no indication that the book was meant as a juvenile, *Liberators and Heroes* is pitched perfectly for the reader in his early or middle teens. The West Indian islands have been the scene of much blood, rapine and other civilized scourges, but the mild treatment and lack of color in the author's style makes even the story of Haiti read like a school history of the War of 1812. A good gift item for the youngster who is beginning to like the study of history, but not for the adult student who wants the full flavor of a colorful portion of the Western world—A.S.

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Off-Duty Reading

THE German General Staff has, we suppose, been studied as extensively as any military organization of modern times but the results of the studies have had rather limited distribution and no general work deals satisfactorily with its operation in World War II and its ultimate destruction. Now, however, Walter Goerlitz, a German historian, has given us *History of the German General Staff, 1657-1945* (Praeger, $7.50). We will not attempt to review the work in these few lines, but it is evident that it is a book of major importance to the military reader—a book that deserves serious study. Although it is not a technical study of the German General Staff, it does give in terms of history its strengths and weaknesses and the characteristics it took from the men who built it and the men who destroyed it.

FOR those of you who thought the *Caine Mutiny* was a great book—and for those who didn't—we have another really fine sea story, *Far From the Customary Skies,* by Warren Eyster (Random, $3.75). As a novel, we don't believe it's as well organized as *Caine,* nor does it have the drama of outright mutiny, but it is still a tremendously dramatic story of men on a destroyer in wartime. The final drama is the destruction of the ship in battle and this, with Mr. Eyster's other battle descriptions, is very good indeed.

THE *Wonderful World of Books* (Houghton, $2.00) is a very fine title for a book that doesn't quite live up to its promise. It is a how-to-do-it book for those who want to find time to read intelligently and to benefit from what they read. We think the book lacks integration, might better have been done by a single author rather than the long list of guest contributors. Be that as it may, there is much good in it for the man who wants to read or to improve his reading. Certainly it is a long step in the right direction.

WE now turn this column over to our editor in charge of fresh- and salt-water fishing. Spring is here, there are fish to be caught and he has a few words to say:

Two fishing books of the many that come off the press each year are worthy of note. *Salt Water Fishing,* by Van Campen Heilner (Knopf, $7.50) is one of those books you certainly don't need but that are so very nice to have. This is a revised edition of a book that first appeared in 1937, and boasts of a preface by Ernest Hemingway, no less. Heilner not only tells, in a literate and readable fashion, of fishing adventures around the world; he offers some terse and valuable information on how each species is caught. There are some beautiful color illustrations, as well as a whole section of photographs. From the lowly fluke to the expensively-hunted tuna, the book covers most species of salt-water fish and most styles of fishing short of seining. It's a book that will fit on the library shelves of the most discriminating, and it's wonderful reading when you can't be out fishing.

Hal Sharp's *Sportsman's Digest of Fishing* is at the other end of the scale; it's only $1.50 (Sterling Publishing Co.) and it's how-to-do-it exclusively. Illustrations on every page, pocket size, it's the perfect companion for the fresh-water fisherman who makes no claim to being an expert. It doesn't answer all the questions (no fishing book yet manages to do this) but it answers enough of them, and clearly, to make it a good buy for all but the most expert. We'll buy one ourselves when Sharp breaks through with one on salt-water fishing. We could use some of these sensible, and even obvious, ideas, and if we ever get talked into any fresh-water fishing we'll take it along and bone up on it while the experts are looking the other way.

ALL contributors of fishing tales will please send their essays by slow freight . . . we're overstocked already.—o.c.s.

lished by Ray Riling and Robert Halter at The River House, 1952. 60 Pages; $10.00.

This is a direct, black-and-white reproduction of the original text and illustrations of the regulations issued by the Confederate War Department in 1861 for officers' and enlisted men's uniforms, and the insignia of ranks and branches. The publishers have added similar original matter relating to the Confederate Navy, which we learn has never before been offered for sale. Early last year an original copy of only the Army portion sold at auction for a thousand dollars. A collector's item, limited to an edition of only 400 numbered copies, on fine paper. That accounts for the price.—N.J.A.

TINKER TO EVERS TO FREEDOM
A RELUCTANT TRAVELER IN RUSSIA. By Tadeusz Wittlin. Rinehart, 1952. 280 Pages; $3.00.

This Polish poet got away from the Germans by escaping into Russian-held territory. He could speak Russian and by quick thinking kept out of prison until he was caught trying to get across a frontier again. He then was held prisoner until released to become a soldier in the Polish Army.

Wittlin's story is one of the few escape accounts with a fair feeling of humor in it. He time and again jibes at Russian stupidity and ignorance. But the background is that which more and more ex-prisoners of the Russians have been describing—the neglects and cruelties of the Soviet slave labor system, and above all its waste of human potential.—G.V.

BOOKS RECEIVED

PICTURE: A Story About Hollywood. By Lillian Ross. Rinehart & Company, Inc. 258 Pages; $3.50. How a motion picture studio functions based on how *The Red Badge of Courage* was produced.

WHO BLOWED UP THE CHURCH HOUSE? and Other Ozark Folk Tales. By Vance Randolph. Columbia University Press. 232 Pages; Illustrated; $3.50.

HARWELL: The British Atomic Energy Research Establishment. Philosophical Library, Inc. 128 Pages; Illustrated; Index; $3.75.

STUDENT DEFERMENT IN SELECTIVE SERVICE. By M. H. Trytten. University of Minnesota Press. 140 Pages; Index; $3.00. By the Director of the Office of Scientific Personnel, National Research Council.

OUR WORLD FROM THE AIR: An International Survey of Man and his Environment. By E. A. Gutkind. Doubleday & Co., Inc. 256 Pages; Illustrated; Index; $7.50.

LYING IN STATE. By Stanton Griffis. Doubleday & Company, Inc. 315 Pages; Illustrated; $3.75. A bookseller, scholar and diplomat tells something of his life.

FREE INDIA IN ASIA. By Werner Levi. University of Minnesota Press. 161 Pages; Index; $2.75.

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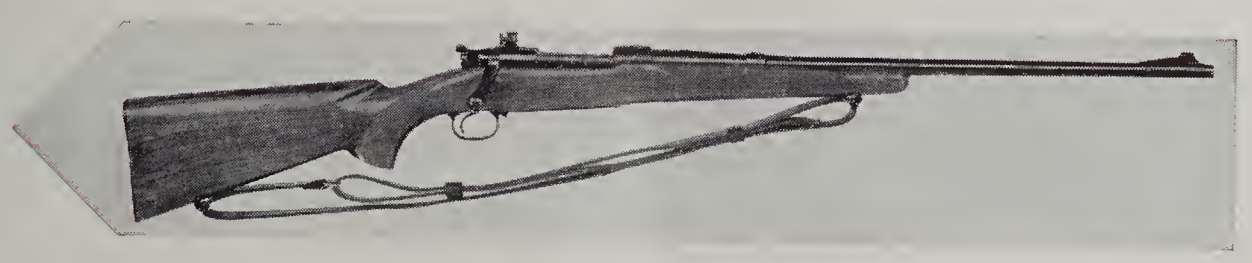
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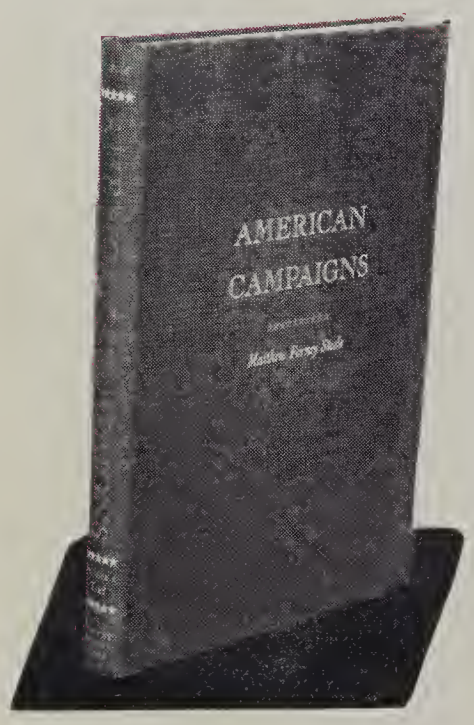
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The editors of Combat Forces Press, recognizing the classic quality of Col. Steele's history of early American battles, and feeling that the text should be revised and reëdited, have completed Volume I. A basic text, it should form a part of every military man's library and in its new form it is a beautiful addition to that library.

Covering American campaigns from pre-Revolutionary battles through the Spanish-American War, *American Campaigns* has been a standard text in the military schools of America for almost fifty years and is at present being used at the United States Military Academy. As a basic reference book, as well as an interesting account by itself, it can be used to provide a complete and authoritative second approach to each battle when reading books like *Lee's Lieutenants, Stonewall Jackson,* or *Lincoln Finds a General.* Though it has been reprinted many times, this is the first edition worthy of such a classic.

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A NEW GENERATION OF AMERICANS LEARN TO SHOOT TO KILL

THE TRADITIONS OF AMERICAN ARMOR

NO article we have ever seen in an American military journal has seemed more calculated to intensify sharp division in our Army than "Ground Force Mobility," by Brigadier General Paul M. Robinett, in the March-April issue of *Armor* magazine, the journal of the U. S. Armor Association. Not only does General Robinett attack our World War II and our present high command as "lacking faith" in mobility. He also inveighs against the Eisenhower and Bradley headquarters (SHAEF and 12th Army Group) of World War II as "overstuffed" staffs given to "sloth-like operations" and defensive tendencies, such as keeping General George Patton's Third Army braked down to a crawl. Patton could have won the war, so General Robinett implies, in a mere fraction of the time it took.

The mobile great of history, we gather from this extreme distortion of it, were Napoleon and Hitler—Hitler especially, with the great Guderian to guide him away from the mud-slow pace of the German general staff. But the "mobile-minded Fuehrer," we learn, "came to his tragic end still commanding imaginary mobile forces, which in reality existed only on paper . . ."

General Robinett, of course, as an all-out armor man, insists that Patton's Army should have been an "armored army"—an army made up solely of clanking armored divisions and no other kind. We get this criticism without a word about armor logistics. And why is there no mention of Jenghiz Khan, speediest of all great leaders of the past?

According to General Robinett, we seem to have nobody today in our high command and staff who is either mobile-minded or offensive-minded. He speaks all too plainly of "the defensive-mindedness of our current leadership" which seems to us an amazing and totally unwarranted statement. We cannot see why any American military magazine could say that Eisenhower, Bradley, Collins, Ridgway, Clark, Hull, or any others now in a high Army place are men lacking in aggressiveness. History has shown again and again that these leaders have the spirit of the offensive.

WE can forgive a soldier for getting so enthusiastic over his own branch that he sneers good-naturedly at the others. But when people get so branch-centered that they are blind to the facts, it seems to us time to call a halt. General Robinett actually quotes Secretary Pace's 1950 statement on the rapid obsolescense of the tank as "loss of faith" in mobile warfare.

What in the name of national defense has "loss of faith" to do with a high official's clearly informative statement that the tank was most probably a goner—against the great new weapons under development?

When we learned of *Armor's* misstatement, we decided to ask a 1953 question. We asked it of an equally important (many would say more important) authority—a great scientist of wide military comprehension. We asked whether the tank was badly threatened by new weapons developments. His answer was right to the point. He was much more forceful and positive about it than the former Secretary of the Army was three years ago.

Naturally the details of modern antitank measures cannot be discussed publicly. It should be no surprise to anyone that better and better ways are found of stopping tanks in their tracks. The ballistic possibilities have always been with the antitank weapons.

Our opinion of the tank today rests solely on its capabilities and limitations.

It is a powerful and vitally important weapon—against any foe not strong in modern antitank power. Against disorganization and weakness it is extremely valuable. Against a strong enemy with modern antitank weapons and equipment, it still may be of some considerable impact, but only at great cost in tankers and their tanks.

Against atomic weapons the tank is particularly helpless—in fact, a sort of trap, because, being of metal, it gets "hot" and stays hot for quite a while. It would be suicidal to stay in a tank hot from radioactive atomic particles.

IN our opinion there is no question that the tank is still an important weapon. In our July issue we will have an article showing the splendid use of tanks by the 3d Division against Heartbreak Ridge in 1951. Here was a completely coordinated action. The 2d Engineer Battalion carved miles of roads up rocky streambeds so the 729th Tank Battalion could reach the rear of the ridge while the 9th and 38th Infantry attacked with full support of all available artillery units.

This happened to be an *infantry* use of tanks and a fine one. *Armor* is inclined to think that non-tankers don't know a track from a turret.

It's our belief that we should have no "non-tankers." Every senior and junior leader in every combat unit, no matter what branch, should have a good knowledge of tanks. Their capabilities and limitations and their methods of operation and use are really no mystery.

It would help greatly to spread armor discussion if the professional material in *Armor* magazine appeared in COMBAT FORCES JOURNAL. Much of the discussion in *Armor,* unlike the Robinett article, makes good sense and ought to reach far more military readers. But as long as the members of the Armor branch keep on closely confining their useful tank material to a few thousand Armor Association member-readers, the tank may remain something of a mystery to a great many people.

If there is a "tank message," an "Armor message," and we believe there is, it should reach a readership a dozen times as big as now.

Union with the Association of the U. S. Army would make the voice of Armor properly heard—heard by tens of thousands of others besides largely Armor readers as now.

The traditions of Armor and its Cavalry predecessor are great ones. They should never be lost. They deserve wider dissemination in the new Army than they are getting.

In our opinion, also, open unreasoned attack upon the great and proved leaders of today's Army does not lie within the traditions we here honor.

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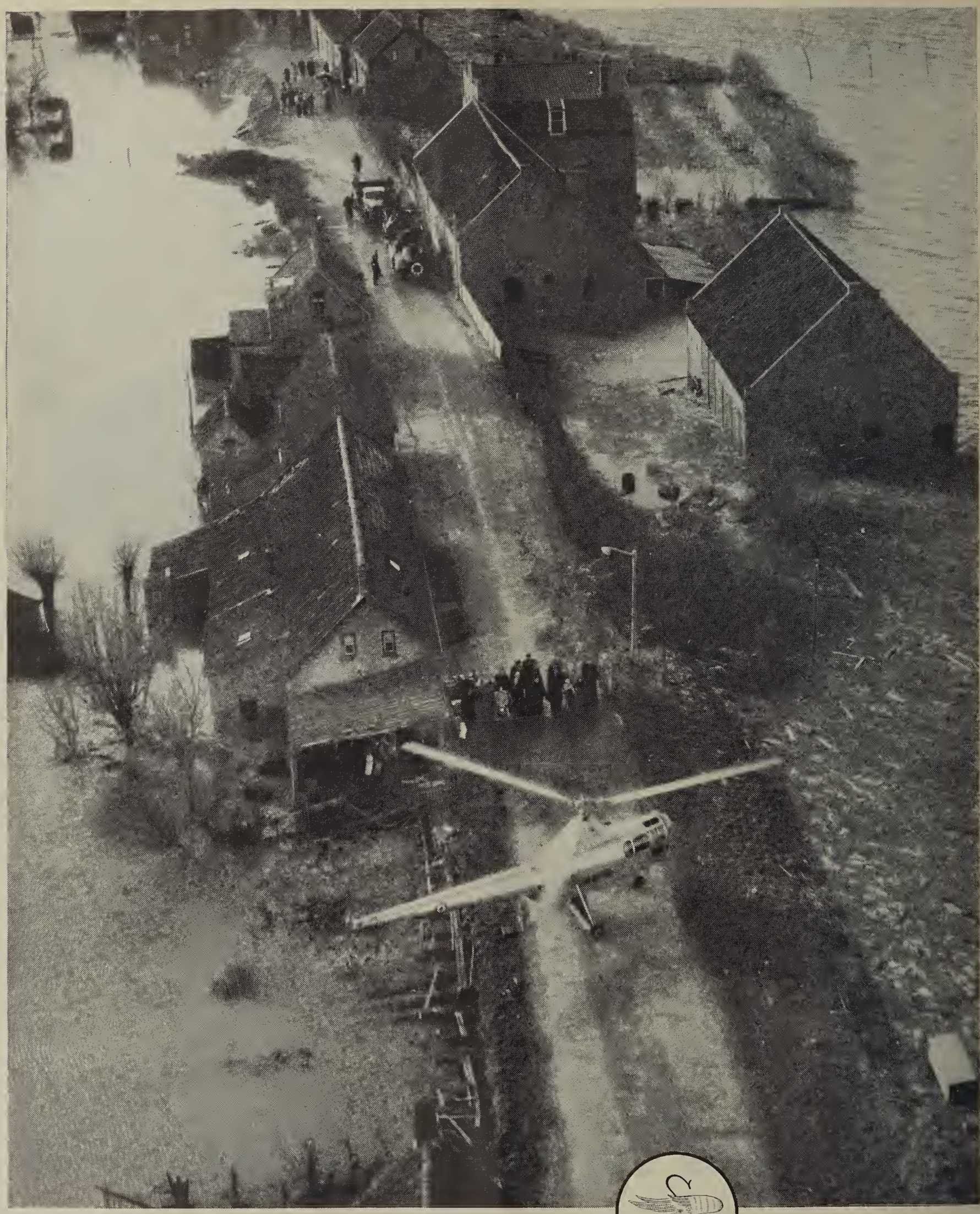
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MALAYA—Sikorsky S-55 and S-51 helicopters have strengthened British forces in Malaya, where their ability to operate without prepared landing fields is particularly valuable, in the struggle against communist guerrillas. Here a group of S-55s flies in review at the Royal Navy Air Station, Gosport, England, before embarking for Malaya on a British aircraft carrier. They were supplied under terms of the Mutual Defense Assistance Program.

AROUND THE WORLD WITH SIKORSKY HELICOPTERS



KOREA—A mine-spotting Navy Sikorsky HO3S helicopter takes off from its floating base on the deck of an LST somewhere off Korea. From a hovering position, its pilot can spot submerged mines not visible from shipboard. With helicopter-minesweeper teamwork, safe channels can be cleared quickly, and danger reduced to a minimum.



LABRADOR—Pilots of Marine Air Group 26 gave their HRS Sikorskys a workout over the bleak Labrador coast recently in training maneuvers. Specialized tactics, made possible by the extreme mobility and utility of helicopters, were tested in ship-to-shore operations. The Sikorskys were based on the aircraft carrier U.S.S. Kula Gulf.

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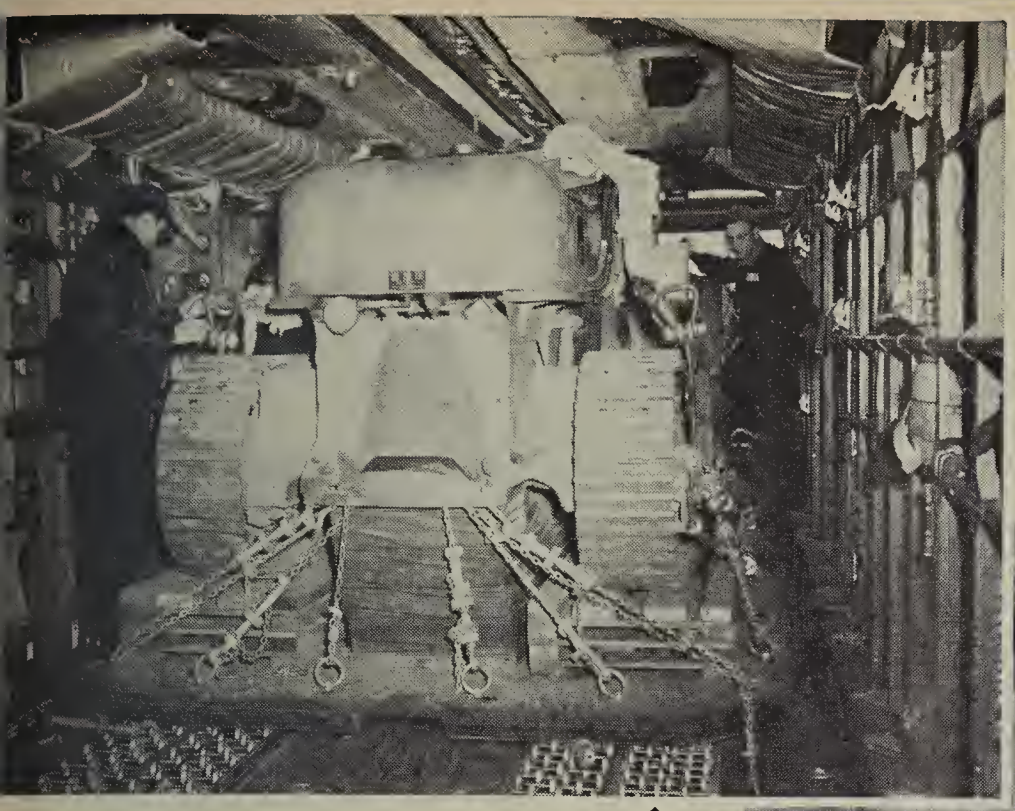
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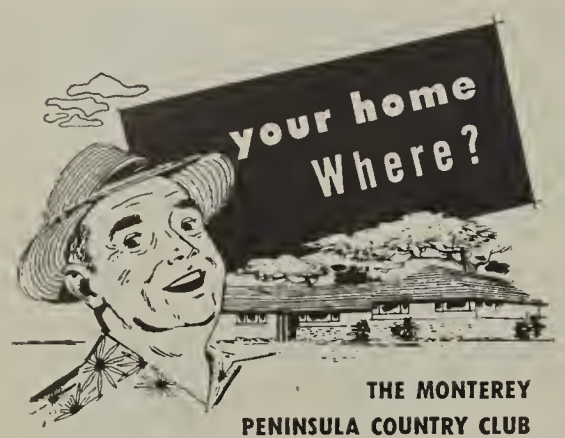
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★ To the Editors . . . ★

Romance and Assignment

To the Editors:

I am in love with a wonderful girl I met while stationed in California before going to Korea. We plan to be married the minute I get off the boat at San Francisco.

My problem is this. I entered the service from Massachusetts and I am afraid that I will be ordered to Fort Devens or somewhere else on the East Coast. But I want to stay in California. Can you arrange it for me? Also my folks are now living in California.

CPL. (Name Withheld)
Armored FA Bn.
Korea

● We are all for romance, Corporal, but you can help yourself more than we can help you. Here's how. Right now, before your rotation comes up, put in a letter through channels asking that your records be changed to show that your home is now in California—use your parents' address. In AFFE, reassignments of homeward bound soldiers are made at Sasebo, in Japan, on the basis of each soldier's home of record. If your records show you live in Massachusetts you'll probably get orders—while still on the boat—to report to Fort Devens, but if you can get your record changed, you will probably find yourself right where you want to be. In case your rotation comes up before the record can be changed, it may be possible for you to arrange for the change while you are being processed at Sasebo. Ask a personnel officer about it.

Boling Rides Again

To the Editors:

Lord love us, Lieutenant M. E. A. Gobus ("Machine Guns—We Need Them") is taking us back to the "two mil tap." When the Army gets back to McClellan and Phillips, too, I'll come back.

CWO JACK L. BOLING
USAF
Dedham, Mass.

Albatross of a Low Report

To the Editors:

Your article "Low Reports" in the April issue was "right on."

As a brand-new Second John in 1942, I was presented with the Headquarters Battery of a new armored field artillery battalion. My first sergeant turned out to be a "bottle baby" and I had to break him after finding him drunk on duty three times in a row. I was saddled with a battalion commander who was a nice guy but was the psychological prisoner of his exec, a rotund, overage-in-grade major who was twelve years older than the CO. This exec had more grasp of the letter of the regulations than judgment and a heart that would make Nicholas Nickleby's uncle look like St. Francis of Assisi. His baleful influence wrecked morale among the junior officers and eventually even got the battalion commander canned.

I had, at that time, more enthusiasm than diplomacy and in a few months was divested of my battery and sent to another one as executive, dragging along an efficiency rating of Satisfactory. From thence I was jettisoned to Div Arty with a Very Satisfactory. One week later, the firing battery I had trained racked up the highest score in the entire Corps on the battery tests. My ex-CO came to Div Arty and told me that he knew that "the good showing was due to the job I had done," but he didn't offer to change the VS. I felt like asking him why he killed the goose that laid the golden egg; I forbore.

To cap the climax, when I left Div Arty, the CO called me in and asked me (1) why I had come over with only a VS, and (2) what had I done that made me feel my rating should be any better. This time I took the bull by the horns and told him a few of my achievements. I got an Excellent.

Since those days many years ago, I have received Superior ratings from officers ranging from the Chief of Staff of a Theater to the CO of a light field artillery battalion in combat.

The damage, however, has already been done. I have been systematically passed over throughout the years as a result of that first year. Currently I am riding well along the back side of my class hump. D/A temporary promotions were supposed to remedy these wartime defects, but after the smoke cleared away the same people that ranked me before still did.

How long do I have to carry this albatross?

MAJOR R. A. TEEDOFF

Ratings by Subordinates and Equals

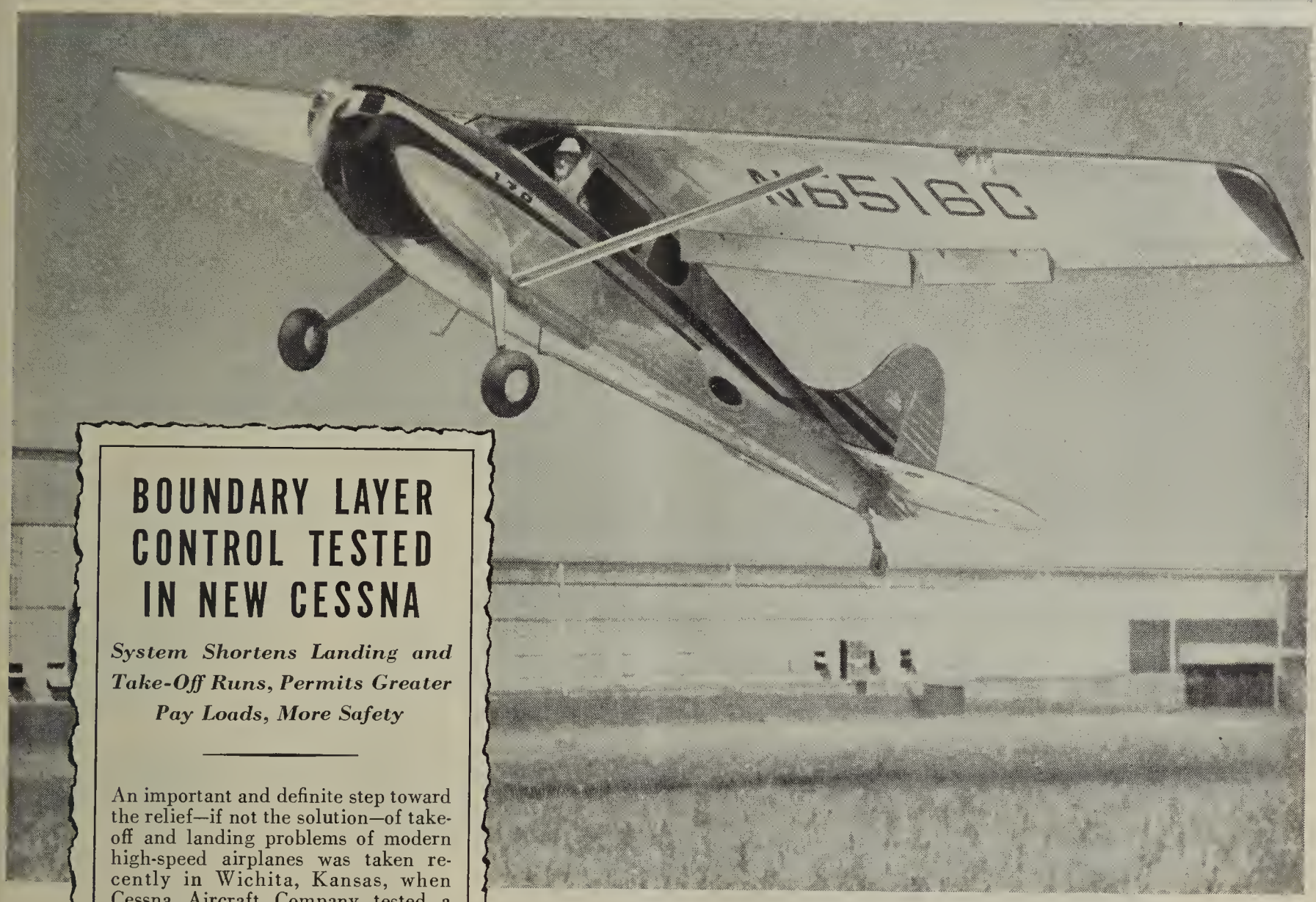
To the Editors:

In the April issue of the JOURNAL, Lieut. F. A. Wolak suggests efficiency reports be rendered by superiors, equals, and subordinates. That's a fine idea. I have advocated it for years, and for important reasons. I am firmly convinced that it is possible to bluff a superior almost all of the time, and a subordinate, almost none of the time. We all know officers who have gone well to the top on the dead and mangled careers of their subordinates. We all know the officer who has built a brilliant reputation by being the "middleman" between sound-thinking and hard-working subordinates and that officer's superior without ever giving credit where due.

One natural reaction to the idea is to cry "bootlick." This would certainly seem to be an inevitable result of having sub-

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MILITARY NEWS from the world's largest light plane producer



BOUNDARY LAYER CONTROL TESTED IN NEW CESSNA

System Shortens Landing and Take-Off Runs, Permits Greater Pay Loads, More Safety

An important and definite step toward the relief—if not the solution—of take-off and landing problems of modern high-speed airplanes was taken recently in Wichita, Kansas, when Cessna Aircraft Company tested a converted Cessna 170 with a "boundary layer control" installation.

Modified under contract with the Office of Naval Research — the test plane produced specific data which verified the promise of extreme high lift thought to be contained in the boundary control principle. The tests definitely pointed the way toward practical boundary layer control installations which would greatly shorten take-off and landing distances for both military and commercial aircraft.

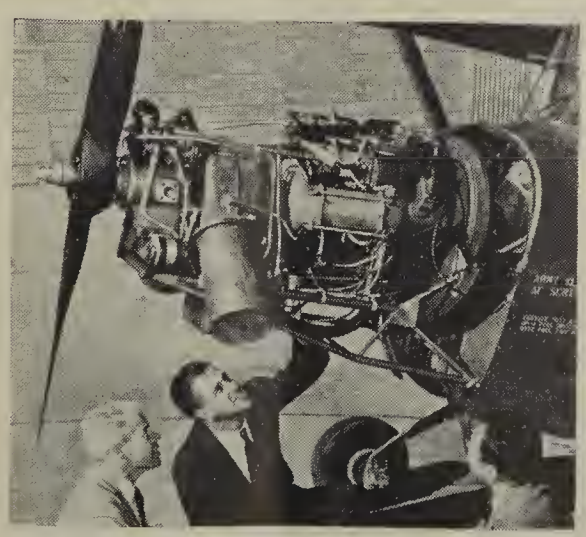
Boundary Layer Control is one of several military projects now speeding ahead at Cessna in Wichita.

Another, is development of the world's first turboprop lightplane. Also, Cessna experimentation on a new helicopter, continued production of the famous L-19 Army observation plane and manufacturing of assemblies for high-speed fighter and bomber planes.

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IN ARMY OBSERVATIONS PLANES AND TURBOPROP RESEARCH . . .

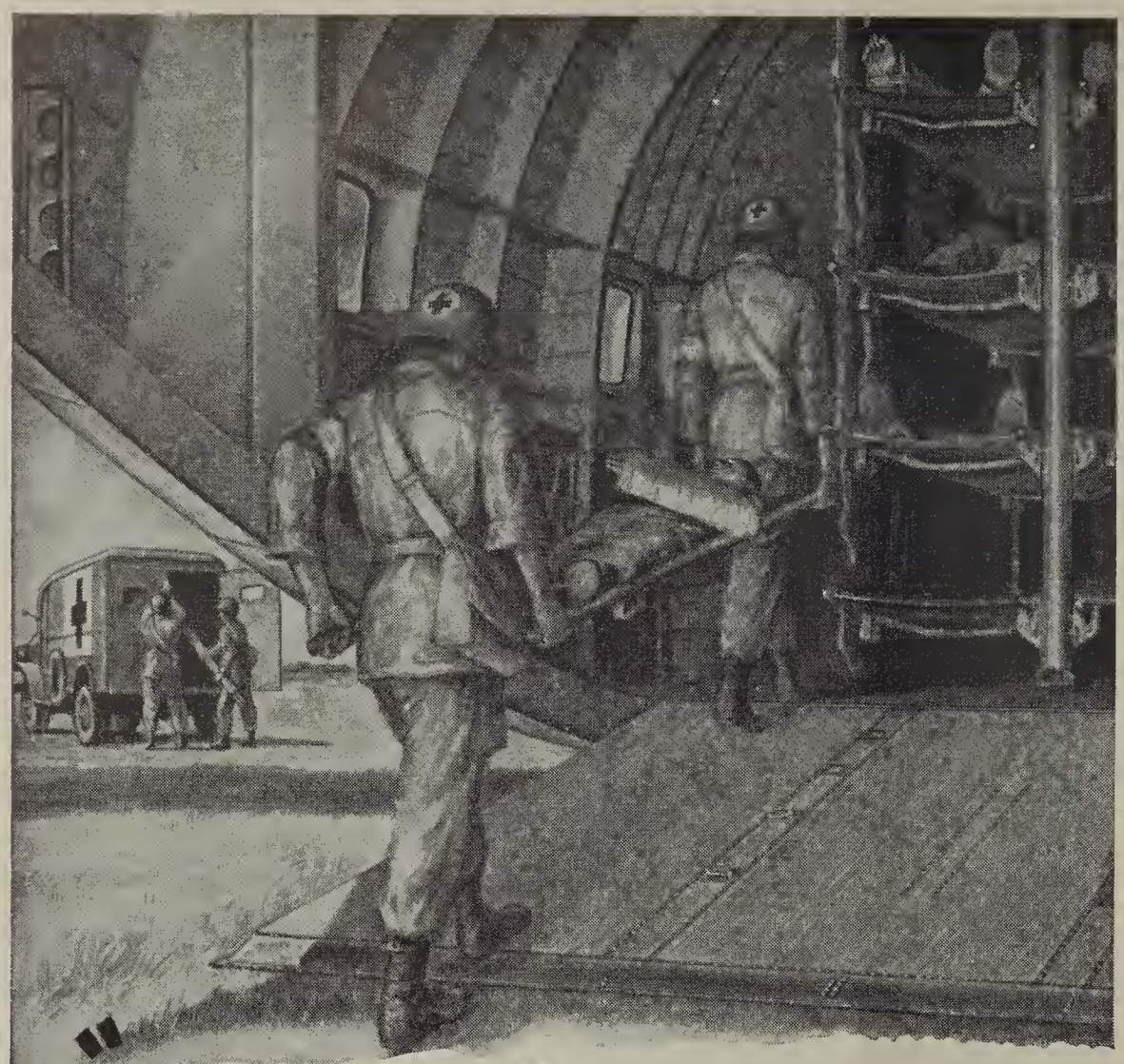




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Combat infantrymen, quickly recognizing its unique value, dubbed it "Operation Lifesaver."

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ordinates make out efficiency reports, but it is not very likely for two reasons. First, there is the risk of the subordinate detecting it—and it shouldn't be hard—and not liking it, to rate the bootlicker "low." Secondly, the superior who also will be rating would probably be aware of it and he also would rate accordingly. In any event, it couldn't be worse than "bootlicking" superiors, and in some outfits, maybe a little more thought to those *"down* the line" wouldn't hurt.

I believe that a very important pattern would soon become evident in the case of each officer. As Lieutenant Wolak points out, the spread of all the reports tends to minimize the effects of over or under rating of easy or tough raters. Since this would result in an increased workload for the efficiency report people, I would recommend elimination from Lieutenant Wolak's suggestion those reports made out by officers of equal rank as they would normally be the least valuable and most suspect of personal prejudice. Perhaps some plan could be evolved where the superior's report would constitute say 50 percent of the total rating while that of each of two subordinates, 25 percent.

LT. COL. M. H. ROSEN
Arlington, Va.

To the Editors:

In "Front and Center" April 1953, I read that "Little can be done to stop the making and selling of fraudulent service ribbons." I have a solution to this problem. If the commanding officers of posts and camps were to send out their provost marshals with instruction to put "off limits," all stores selling unauthorized items of clothing, insignia and equipment, I'm sure the selling part could be stopped in short order.

A plan for the education of all would help a lot. It is not only the short termer that does not understand the regulations. Many officers and senior noncoms wear unauthorized insignia and ribbons. The DUC, Fourragère, occupation ribbon and insignia on the right shoulder are flagrant examples.

CAPT. LAWRENCE J. WERNSMAN
411 Madison Street
Jefferson City, Mo.

Missing Punch Bowl

To the Editors:

The 2d Infantry Regiment is reconstructing its trophy room and is attempting to locate lost and misplaced trophies, mementos, pictures, and related material. Of particular interest is the present location of the 2d Infantry Regiment Punch Bowl.

This Punch Bowl is described in records as consisting of a silver outer bowl, or shell, with "2d Infantry" inscribed, and an inner bowl, or liner, of glass. There is a silver ladle.

Information we have suggests that the Punch Bowl was transferred to the 7th Infantry Regiment's Officers' Club on 20 Sep-

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A Salute

TO THE LOW-FLYING MEN!



All hail to the ace in the "wild blue yonder" . . . but let's give with some man-sized cheers for the lads who slug it out at hill-top level. From the time they take off . . . till the mission is completed, these strategic fighter bombers and tactical close support pilots face a brutal blasting all along the way.

➢ ➢ ➢ Sniped at by small arms and machine guns . . . bracketed by flak with the constant hazard of limping home harassed by enemy aircraft . . . these are the stout warriors for whom we've planned Republic's rugged THUNDER-craft *. . . to get them there . . . do the job, and bring them back.*

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tember 1946, was turned in to G4, 3d Infantry Division, 4 January 1947, and subsequently on 6 August 1947, donated to the Post Officers' Club, Fort Campbell, Kentucky. Further documentation is not available and there is a presumption that the Punch Bowl, and its records might have been destroyed in the fire which destroyed the club at Fort Campbell in July 1948.

Information received from Fort Campbell indicates that the Punch Bowl was not listed among the property destroyed and inquiry fails to reveal conclusively that the Bowl was destroyed: the possibility exists that it might be in the possession of some individual or a bank for safekeeping.

If any of your readers are able to furnish information which will assist in locating the Bowl, the 2d Infantry Regiment would be very grateful for it.

COL. M. C. HIGGINS

Hq 2d Inf Regt
5th Inf Div
Indiantown Gap, Pa.

Roads Are Useful

To the Editors:

Re "Put 'Em on Tracks," COMBAT FORCES JOURNAL, April 1953. Granted we need cross-country vehicles for fighting tasks. Granted further, that when no adequate road net exists, we need cross-country mobility for logistic support. It does not follow, however, that such characteristics are the most desirable when conditions allow otherwise. Even the tank uses the road when there is a suitable road.

Patton followed the roadways, not to accommodate the supply vehicles, but because they allowed his tanks greater speed. The Red Ball followed the roadways, not because the vehicles used could not go cross-country, but because that was the only way possible to keep up with the road-running tanks.

Indeed, the limitations of the Red Ball were not that the vehicles were road-bound, but simply that the vehicles possessed certain unnecessary off-road characteristics which limited their load-carrying capacities. When you add four-wheel drive, 24 volt electrical systems, deep-water gadgets, greater power and traction to a vehicle, in order to give it greater cross-country mobility, you reduce proportionately the ability of the vehicle to transport a load. This not only spirals costs and burdens maintenance, but results in more vehicles required to do the same task.

There is every evidence that the Red Ball will be repeated. It was repeated four times over in Europe after the original achievement: in the ABC, the Green Diamond, the Yellow Diamond, and the mammoth XYZ across Germany. It was duplicated, on a different scale, in North Africa, Iran, Burma, Australia, and Korea. You simply do not, in war, do things the hard way when the simple way is best and most effective.

The wheeled vehicle is a necessary weapon in any modern land army. It cannot replace the tank; neither can it be replaced by the tracked vehicle and still fulfill its mission of delivering fuel and ammunition, quickly and repeatedly, over long distances in support of the slower, more "dogged" tank.

CAPTAIN AVERY E. KOLB
2952 So. Columbus St.
Arlington, Virginia

Drivers Make Good Transportation

To the Editors:

The March issue COMBAT FORCES JOURNAL is an excellent compendium of articles dealing with the subject of Infantry transportation. I was surprised and somewhat disappointed, however, that after scanning through it I found nowhere any mention of the most important factor of them all concerning driving and transportation, the piece of equipment behind the steering wheel, the GI driver. With but one exception (the photo of a driver, knee-deep in mud, on page 27) no one really has said "in designing and use of trucks we also consider the GI driver" or words to that effect.

If the ratio of trucks to troops was and is one to five, then in World War II we had roughly three-fourths million of our soldiers as drivers. This is a big figure. In all fairness to our military drivers, the privates and corporals, there should've been an article about them.

In the final analysis the "interchangeability," the "reliability," the "productivity" and other big words concerning transportation amount to only as much and no more than does the driver's willingness to drive and the responsibility he assumes for the particular vehicle he has been entrusted to drive and maintain.

MAJOR FRANK NOVAK
Deputy Provost Marshal
APO 742, c/o PM
New York, New York

Rotate Units

To the Editors:

I am Regular Army all the way. My subject is rotation . . . individual rotation. In basic training a man is told that he is a part of a team and that team work is all that counts. As he goes through basic his platoon works toward that goal, he gets to know and trust his buddies on his right and left, he gets to depend on them, he knows that they will be there when he wants them, he gets to know his squad sergeant, platoon sergeant, and officer. At the end of fourteen weeks he knows he is part of a team, his morale is high, he brags of his platoon and company. He thinks and knows that he is part of the best team or platoon, in the best company, in the

(Continued on Page 33)

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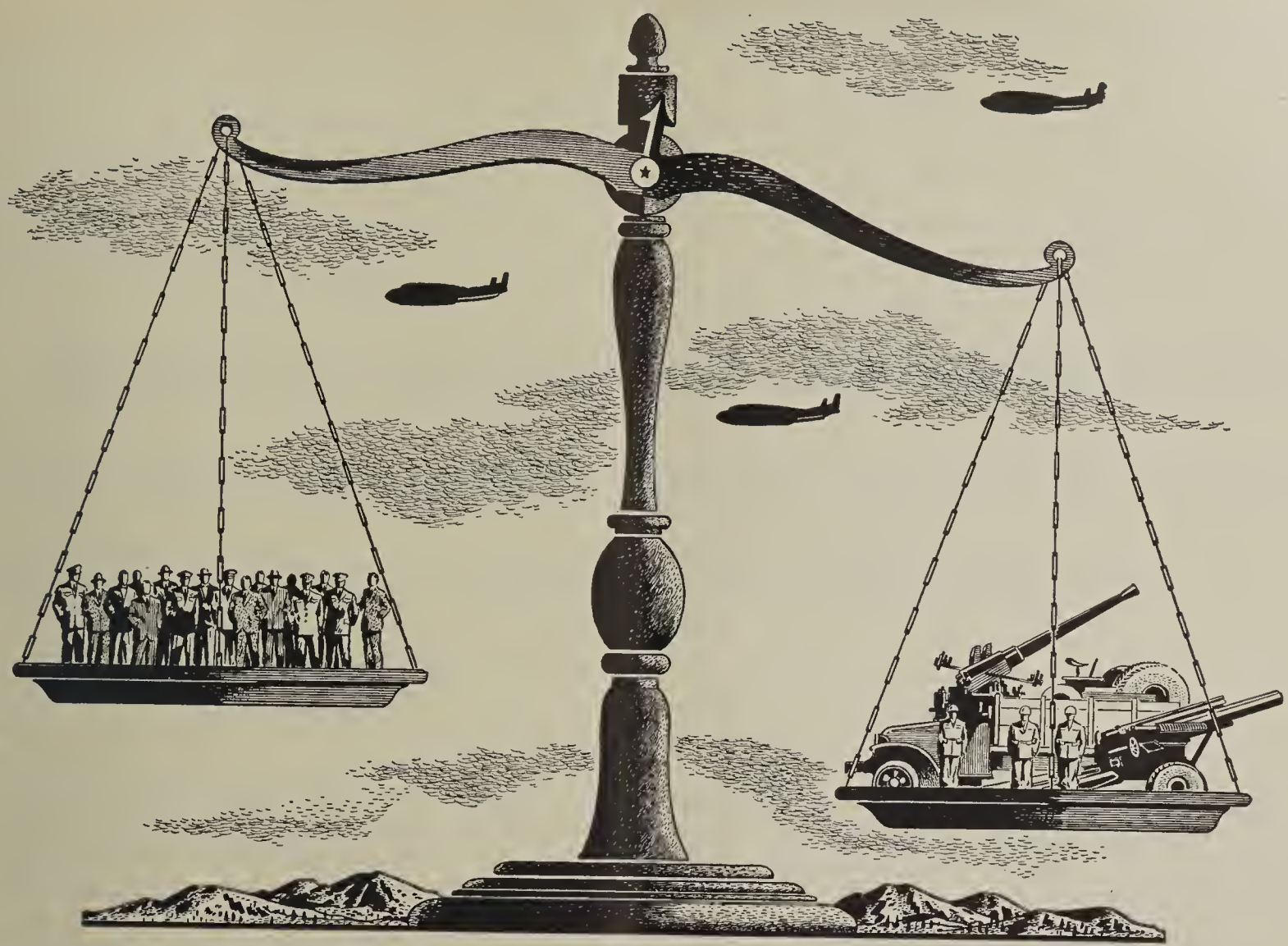
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Watch Out for "Cost per Ton-Mile"...

IT'S LOADED!

"Cost per ton-mile" is what military planners watch in everything that concerns air transport to our Armed Forces. And rightly! But let's be careful what we mean by "ton-mile cost." It's got to be *loaded* cost.

Men can march on and off *any* plane. The big problem is equipment . . . tanks, trucks, bulldozers, massive pieces. Operating cost for such shipments *must* include loading and unloading . . . with all the attendant factors. If equipment has to be knocked down and crated, then uncrated and reassembled at destination . . . that's cost. Man-hours for handling, expensive machinery for carting, hoisting, stowing . . . that's cost. And longer turnaround time for these cumbersome operations is also cost . . . idle aircraft eating up dollars.

Reckoned completely, with all these factors, ton-mile cost for the Fairchild Packet C-119 is the lowest ever achieved in air history! Tanks and trucks roll up its ramp as easily as men march in. Bulk cargo goes "as is." Turnaround time is the fastest ever. And in addition, this rugged "Flying Boxcar" is the most versatile in air transport. No other aircraft has remotely approached its successful score for air drops of men and materiel . . . 10 tons dropped from a single C-119!

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To military men all over the world, the TWIN BOOM of the Fairchild Packet means "big stuff" ready to land . . . tons of bulky supplies or squads of troops ready to pour down the ramp and go into action at the lowest total cost in money and time. That's lowest *total* cost . . . *ton-mile cost loaded, and unloaded.*

ENGINE AND AIRPLANE CORPORATION

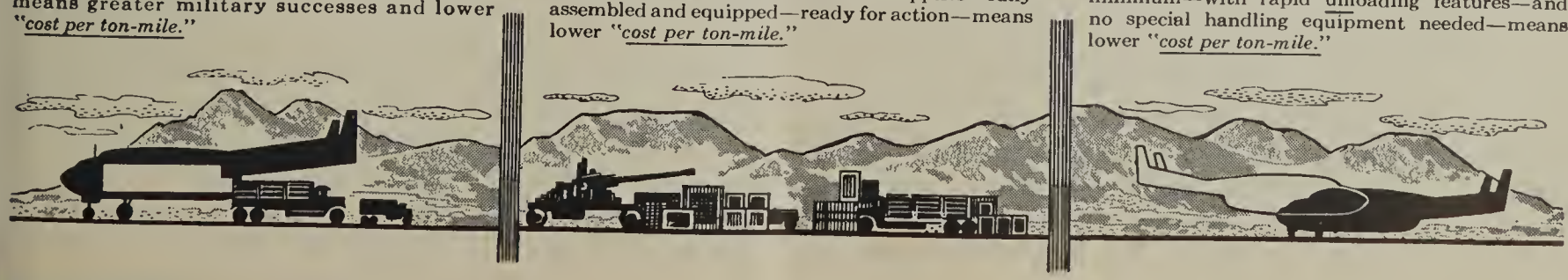
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20 February 1953

MEMORANDUM FOR: The Secretary of Defense

SUBJECT: The Future of the Military Services as a Career That Will Attract Capable Personnel

DURING the course of the past several years, the Joint Chiefs of Staff have become increasingly concerned about the growing lack of confidence among Armed Forces personnel in the military service as a worthwhile and respected career. The Joint Chiefs of Staff are particularly concerned, however, as to the implications of this situation as they affect the future of the military services as a career that will attract and hold capable officers, warrant officers, and noncommissioned officers.

This concern stems from discussions, observations and impressions gained on visits to military installations, both in the United States and overseas, and from mail and reports received from various representatives of the military services. A brief discussion of some of the factors which have brought about this problem, together with some thoughts concerning an approach to its resolution follow.

THE primary reason for this growing lack of confidence in the military services as a career, stems from the feeling that the Government has broken contract with military personnel and has changed the rules in the middle of the game. Military personnel feel that the Government should keep its part of the contract and abide by the rules with the same degree of conscientiousness as it demands from them. To support this contention, military personnel point to the "Van Zandt Amendment," which denies retirement benefits except when personnel are forced out of the service with the stigma of non-selection; the "Davis Amendment," the immediate result of which is to deny earned promotions to thousands of junior officers and to require the reduction of many others to the next lower grade; the reduction of weight allowances in shipping of household effects for officers, particularly when they have moved their household goods overseas and suddenly find that part of their shipping allowances to return them to the United States has been withdrawn; and, the gradual "whittling away" of fringe benefits such as commissary and exchange privileges and medical and dental care for dependents. Additional factors which have contributed to the reduced attractiveness of the military services as a career are the inequities between the benefits provided to survivors of Regular and Reserve personnel; the progressive lowering of the standard of living of officer personnel; the increasingly frequent periods of family separation due to lack of dependent housing in overseas areas; and the tendency to diminish the distinction between officers and enlisted personnel, with resultant lack of incentive for advancement to higher rank and its added responsibilities.

Aside from the material causes which have reduced the attractiveness of the military services as a career, the habitual slurring of the officer corps by some members of the Congress and some elements of the press, together with the trend towards legislation by rider, have served to aggravate this serious situation.

VARIOUS combinations of the foregoing factors have unquestionably raised doubts in the minds of capable young men as to the long-term desirability of a military career. As a result, we have been unable to attract and hold as many high-type career officers, warrant officers, and noncommissioned officers as are needed to maintain the high standards of our Army, Navy, Marine Corps and Air Force. In other words, it is in the field of obtaining young officers, warrant officers and noncommissioned officers who wish to make the military profession their career that the implications of this situation are most serious. As an indication of the seriousness of this situation, in the Army alone, 36% of all ROTC students tendered appointments in the Regular Army, during the period 1949-1952, declined; the percentage of resignations from the United States Military Academy has increased from 5.4% in 1950 to 11.9% in 1952; and, the reenlistment rate has dropped from about 60% at the start of World War II to 6.1% in December 1952.

In short, the current situation invites and encourages mediocrity in the direction and management of our armed forces, which the nation can ill afford. Analyzed in the light of the fact that the larger function of our great national budget is now administered by uniformed officers, in whose hands actually repose the key responsibilities for calculating vast material requirements and for supervising the expenditure of great sums of money, the Joint Chiefs of Staff feel that the nation cannot afford to be content with anything short of the highest caliber personnel for our armed forces.

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To discourage the development of a high quality corps of officers, warrant officers and noncommissioned officers by diminishing the attractiveness of such service must ultimately prove to be shortsighted economy with unfavorable reflections not only upon the quality of our defense, but upon the husbanding of our national treasure as well.

Although constructive remedial action is certainly indicated, many of us are too prone to conclude that all of the factors which have contributed to the unattractiveness of military service as a career require legislative action—and hence are generally outside the control of the military. Concerning unfair and malicious attacks made upon the military services, there is the tendency to accept this criticism without any attempt to keep the record straight. In some respects this attitude is understandable, in that it probably stems from the inherent discipline of the uniformed officer and his recognition of the principle of the supremacy of civilian control.

THE Joint Chiefs of Staff feel, however, that much can be done to counteract this worsening situation, and that it is our duty and responsibility to take corrective action as needed. Furthermore, we feel that corrective action can be taken without violating either the letter or the spirit of the principle of civilian control. In general, if we are to be successful in this all-important task of raising the prestige of the military services, we must insure that the combined efforts of the civilian and military personnel of the Department of Defense are harnessed and directed toward that common goal. In this connection, the Joint Chiefs of Staff feel that the lead in seeking desired corrections must be taken by the civilian element of the Military Departments. Pleading of the case by the uniformed contingent alone would be subject to discount—and even challenge—on the grounds of partisanship.

It is imperative that we initiate action immediately with a view to developing the best possible data on this career problem so as to be able to bring before the Congress and the people the serious situation which exists in the military services today, together with well-thought-out recommendations for correcting same.

The Joint Chiefs of Staff would like to point out, however, that this whole project should be approached with full recognition of the fact that corrective action will not be forthcoming if our efforts are directed only to a defensive type of operation. In other words, emphasis should be placed on seeking out compensating benefits which will reclaim for the military those losses which have reduced the attractiveness of the service as a career, rather than on trying to hold on to what we have left.

As a first step towards the resolution of this problem, the Joint Chiefs of Staff recommend that you propose the appointment by the Armed Forces Policy Council of an Ad Hoc Committee, consisting of the Personnel Chiefs of the military services, monitored by the Assistant Secretary of Defense (Manpower and Personnel), and assisted by the Director of the Office of Public Information, OSD, to submit appropriate recommendations on the subject.

FURTHER, the Joint Chiefs of Staff recommend that you propose for approval of the Armed Forces Policy Council the following terms of reference for the above-mentioned Ad Hoc Committee:

(1) To undertake an all-out research effort, designed to point up those factors, both materialistic and otherwise, which have served to reduce the attractiveness of the military services as a career.

(2) To recommend ways and means to counter those factors indicated in the preceding paragraph.

(3) To indicate which of the recommendations for corrective action can be handled internally by the Department of Defense, require legislation, or have particular implications with regard to the Bureau of the Budget.

(4) To determine those recommendations for corrective action which can be adapted to a public information program, together with recommendations concerning the implementing media (press, periodicals, radio, film, television, addresses by senior military and civilian personnel of the Department of Defense).

(5) To formulate an appropriate legislative program to include drafts of legislation required, together with a schedule for submitting same to the Congress.

(6) To develop complete brochures on all recommendations requiring legislation. These brochures will serve as a basis for testimony by civilian and military personnel appearing before committees of Congress.

OMAR N. BRADLEY,
Chairman,
Joint Chiefs of Staff.

WHAT'S BEING DONE ABOUT IT

AS the date—20 February—reveals, Mr. Wilson has had these recommendations of the Joint Chiefs for several months. And as we reported in this magazine last month, he has appointed a special joint service committee to study and report on the subject. Maj. Gen. Robert N. Young, the Army's G1, is the Army member of the committee.

President Eisenhower has taken notice of the situation. He directed Mr. Wilson "to organize a study of the problems of attracting and holding competent career personnel—civilian and military—in the Department of Defense," and he told the Congress in his reorganization message:

"We owe it to all the people to maintain the best military establishment that we know how to devise. There are none, however, to whom we owe it more than the soldiers, the sailors, the marines, and the airmen in uniform whose lives are pledged to the defense of our freedom."

This kind of support from the highest levels is heartening to those who have long been alarmed at the persistently insidious attacks on career men in uniform. But there will be opposition, strong and powerful opposition. Some of it will be dictated by selfish professional and business groups and some of it will come from those men and women who, through prejudice or ignorance, or both, constantly shout that uniformed men and women are people of small capacity who spend their lives feeding at the public trough. Unfortunately, and dangerously, some of these enemies are in positions of influence in offices of the government. They may not fight openly against the known desires of the President, but some of them may be able to delay,

(Continued on Page 33)



COLONEL
JOHN T. CORLEY

Teaching 20th Century Americans to shoot to Kill

NEW COURSES FOR OLD TRADITIONS

THE "finest troops in the world" attacked a small "backwoods rabble" one January morning long ago. When the smoke cleared many of the "finest troops" were sprawled upon the field and the survivors were retreating in disorder. Thus, an American Army, commanded by General Andrew Jackson, smashed a larger British force. The Battle of New Orleans was most humiliating for the European troops—and for European concepts of warfare.

An English observer wrote: "I had heard and read of troops being panic-stricken. This was the first time I ever witnessed it. And they were British troops, too; veterans of many a desperate field . . .

"Subsequent examination of the field gave a clew to the cause of panic. It was the wonderful accuracy and murderous effect of the American fire. . . . Of those killed an appalling proportion, particularly at the point nearest the lines, were shot through the head."

This was an example of what was, even in 1815, a tradition of American rifle marksmanship.

In World War I, it was vividly demonstrated during the Second Battle of the Marne when a German division attacked the 38th Infantry Regiment of the 3d Infantry Division. French officers who later inspected the battlefield were impressed by the bodies of 3,000 Germans. One Frenchman observed with Gallic overstatement, "and every one with just one little hole in the forehead!"

A letter found on the body of a German officer after the same battle gave the Teutonic viewpoint, "God save us from these Americans. They kill us like animals with their rifles. They are the best marksmen in the world."

During World War II and the postwar period, the Army tended to substitute firepower for marksmanship. However, the Korean conflict has sharply brought back the need for the old "shoot to kill" tradition. The rugged Korean terrain often makes it a war of man versus man and has earned the conflict the reputation of being "a rifleman's war."

THROUGHOUT the Army there has been renewed emphasis upon a soldier's marksmanship training for what is actually his basic mission—to kill the enemy. Hours allotted to rifle marksmanship during the sixteen weeks of basic training have been increased, since the outbreak of Korean hostilities, to eighty-two hours.

COLONEL JOHN T. CORLEY, Infantry, commanded an infantry battalion in World War II and an infantry regiment in Korea in 1950-51. He is now Chief of the Infantry Section, Combined Arms Branch, at the Office of the Chief of Army Field Forces.

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American rifleman can again be the best shooters in the world



General J. Lawton Collins, the Chief of Staff, summed up the present feeling when he said, "The primary job of the rifleman is not to gain fire superiority over the enemy but to kill with accurately aimed rifle fire."

Army Field Forces is determined to increase the rifleman's "kill" capability and in recent months has completely revised rifle marksmanship courses. These courses are vitally important in that they measure the effectiveness of preliminary marksmanship instruction and establish the standard for qualification. The modifications of the standard rifle course (which was established by outstanding civilian and military marksmen) reflect the present needs of the Army—and the same traditions responsible for the remarkable victory at New Orleans.

	Standard Old Course		Standard New Course	
Range (Yards)	*Rounds*	*Position*	*Rounds*	*Position*
100, Slow Fire	8	Standing	No	change
200, Slow Fire	*8 *8	Kneeling or Sitting Squatting or Sitting	**8	Kneeling, Sitting or Squatting
200, Sustained Firing	9	Kneeling, Sitting or Squatting from Standing	No	change
300, Slow Fire	8	Prone	No	change
300, Sustained Firing	9	Prone from Standing	No	change
500, Slow Fire	10	Prone	8	Prone

*The sitting position may be substituted for either the kneeling or squatting position, but not for both.
**Firer's choice.

Figure 1. Comparison of the old and new standard courses

HOW do the old and the new standard rifle courses compare? Figures 1-5 give the picture pretty completely.

The change in slow fire at 200 yards is for uniformity, as the firer is permitted choice of three positions for sustained firing at the same distance. The kneeling, sitting and squatting positions are fired in instruction practice and then the firer is given his choice of positions in record firing.

The reduction in the number of rounds (from 10 to 8) fired at 500 yards, slow fire, was made to conform to the prone firing at 300 yards. It is believed that the ten rounds at 500 yards was a carry-over from the old Springfield rifle course.

	Old Course A		New Course A	
Range (Yards)	*Rounds*	*Position*	*Rounds*	*Position*
100, Slow Fire			8	Standing
200, Slow Fire	4 4	Kneeling Standing	8 8	Prone Sitting, Squatting or Kneeling
200, Sustained Fire	9	Kneeling or Sitting from Standing	9	Sitting, Squatting or Kneeling
300, Slow Fire	4 4	Prone Sitting or Squatting	8	Prone
300, Sustained Fire	9	Prone from Standing	9	Prone
300, Slow Fire	8	Prone		
TOTAL	42		42	

Figure 2. Comparison of the old and new Course A

	Old Course B		New Course B	
Range (Yards)	*Rounds*	*Position*	*Rounds*	*Position*
100, Slow Fire			8	Standing
200, Slow Fire	6 6	Kneeling Standing	8 8	Prone Sitting, Squatting or Kneeling
200, Sustained Fire	9	Kneeling or Sitting from Standing	9 9	Prone Sitting, Squatting or Kneeling
300, Slow Fire	6 6	Prone Sitting or Squatting		
300, Sustained Fire	9	Prone from Standing		
TOTAL	42		42	

Figure 3. Comparison of old and new Course B

	Old Course C		New Course C	
Range (Yards)	Rounds	Position	Rounds	Position
200, Slow Fire	4	Squatting or Sitting	8	Prone
	4	Kneeling or Sitting	8	Sitting, Squatting or Kneeling
	4	Standing	8	Standing
200, Sustained Fire	9	Kneeling or Squatting from Standing	9	Prone
	9	Sitting from Standing	9	Sitting, Squatting or Kneeling
	9	Prone from Standing		
TOTAL	39		42	

Figure 4. Comparison of old and new Course C

	Old Course D		New Course D	
Range (Yards)	Rounds	Position	Rounds	Position
200, Slow Fire for Old Course D and 1000", Slow Fire for New Course D	4	Squatting or Sitting	8	Prone
	4	Kneeling or Sitting	8	Sitting, Standing or Kneeling
	4	Standing	8	Standing
200, Sustained Fire for Old Course D and 1000", Sustained Fire for New Course D	9	Kneeling or Squatting from Standing	9	Prone
	9	Prone from Standing	9	Sitting, Squatting or Kneeling
TOTAL	30		42	

Figure 5. Comparison of old and new Course D

THESE changes naturally demanded adjustment of other courses. There are four other rifle qualifications courses, grouped alphabetically. The Standard Course is established for 100, 200, 300 and 500 yards firing. However, such a complete range is not always available, so Course A is designed for an installation with only the 100, 200 and 300 firing positions. Also, in some rare cases, time might not be available for firing the complete Standard Course, so this modification would be acceptable. However, Army Field Forces strongly urges departure from the Standard Course only when absolutely demanded by circumstances.

Course B has only the 100 and 200 firing positions, Course C, only 200 yards. Course D is the 1000-inch range, used most often in instructional work previous to firing the Standard Course. However, all three of these can be utilized for qualification if more complete firing facilities are not available, or if there is an acute time factor.

Throughout all courses, the number of rounds fired has been kept consistent with the standard course. Figure 6 shows the firing qualification scores.

TRANSITION firing, which was divorced from known-distance firing in October of 1952, consists of firing at field targets from combat-type positions as well as firing at surprise targets at short ranges. This firing is designed to bridge the gap between known-distance firing and advanced field work. The rifleman now earns his marksmanship qualification on the known-distance range but *must* confirm it by



successfully firing on the transition range.

This requirement for transition firing now applies to all rifle courses except for Course D. However, where transition facilities are not available, Courses A, B, and C are complete in themselves.

The Quick Fire Course has been redesigned so that it is a real challenge. The ten silhouette targets outlining a man from his head down to about the knees (E type) have been replaced by the smaller silhouette showing the upper shoulders and head (F type).

Three reaction targets have been added—which means the addition of "friendly" silhouettes popping up with the "enemy" silhouettes. When a trainee shoots one of his "own men" he loses points plus gaining some food for thought. Also, two moving targets have also been added which demand quick reaction and ability to "lead" properly.

It takes an alert rifleman to spot and hit all of the targets on this new Quick Fire Course—and its training should pay handsome dividends on the battlefield.

THESE courses assist a rifleman in developing the necessary accuracy but the results are only as good as the thoroughness of preliminary marksman training. Strict adherence to the fundamentals of rifle training (as outlined in FM 23-5, "The Rifle Manual") and the use of properly qualified instructors will produce competent soldier-marksmen.

The Army is concentrating upon maintaining the high standards now being reached. History, as made at Bunker Hill and New Orleans, and current events, as in Korea, indicate that the American soldiers can hit bull's-eyes—or aggressors between the eyes.

	Possible Score	Expert	Sharpshooter	Marksman
Standard	250	212	187	160
A	250	212	187	160
B	210	178	157	134
C	210	169	148	125
D	210	178	157	134

Figure 6. Qualification Scores

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HOW TO USE (UP) MANPOWER

LIEUTENANT COLONEL ROBERT B. RIGG

How to build a mobile and modest streamlined staff in the atomic and administrative age

BY the third cup of the fourth coffee call the idea had gained momentum and was ready for recording, even if the recorders were not. A brief, consolidated staff study of only 548 pages was completed after two weeks of formal cigar-smoke arguments in the HQ conference room. While the haze of final battle lingered like an atomic cloud, the manpower-conscious chief-of-staff, Colonel Cutlass, rose to comment on his staff's recommendation. The issue at hand was whether or not to leave the two new special weapons battalions alone (as attached) or form them into a group.

The staff, which sat well above the two special weapons battalions, had recommended that a small, group HQ be formed.

"We must save manpower," said Colonel Cutlass looking downwards through his glasses and thinking upwards towards Congress and his next efficiency report. "I approve the staff recommendation, except as to size. I don't like the plan for an eight officer and ten enlisted man staff HQ. I slash the officer staff by fifty per cent, and hereby eliminate the enlisted men completely. That's final. Let this new one-two-three-four staff function as a streamlined, mobile, fast-moving, simplified, group HQ that can get about almost as rapidly as those special (very secret) weapons they direct!"

The chief sat down, and his staff, less recorder, typist, coffee orderly, S1, and personnel officer, filed out, having learned a lesson in manpower utilization.

"Remember, gentlemen, the heat is on. We've got to cut and cut on manpower. The manpower flap is red hot; we've already lost two of our best twenty-three typists to higher headquarters. This Army has got to fight . . . men must shoot."

THUS began HQ of Group Zebra. The G1 spent several manpower weeks selecting four good officers for Staff Zebra. The commanding officer was already selected by unanimous approval: he had been the staff member who had given birth to the idea; Lieutenant Colonel Atomage was a man who could see eagles in every coffee cup or cocktail glass.

On the day of Group Zebra's departure Lieutenant Colonel Atomage and his one-to-four staff stood at attention before Colonel Cutlass whose final words were "Don't be slaves to your IN baskets or dictators from your OUT baskets, be mobile—and be off, to the field!"



"The manpower flap is on, men—we've just lost two of our twenty-three remaining typists"

Thus began Command Group Zebra whose first problem was transportation. The Group's new CP was to be at a point 120 miles distant. Colonel Atomage, had a *carte blanche* order which he waved to get a jeep in order to get to his new post. However, as five men would overload and overweight the new type jeep, he had to requisition two, each complete with driver.

"We'll live off the land, lean on other people's desks and use our hip pockets for IN and OUT baskets," roared Colonel Atomage as the convoy rolled away.

But Command Group Zebra, now at a forward and isolated CP could not beg or bribe native typists, so a frantic TWX went out by the out-of-channels-thru-friendship bamboo telegraph, and two freshly cleared Pfc typists arrived.

"Our desks are too far apart," remarked Major Guidemissel, the S2. "It will save manpower for the officers here if we have a messenger orderly."

"Approved," barked Colonel Atomage from the adjacent pillbox-type desk, "send a TWX request!"

"Better add a first-aid man," chimed in Captain Ledbucket, the S1, "we will number ten by the time the orderly gets here."

"The aid-man will need a jeep and driver to be effective," added Major Offset, the S3.

"That will increase logistical burden and paper work," said soft spoken Captain Longton. "I'll need at least two more typists."

"I've never argued with mathematics or logistics," grimly remarked Colonel Atomage, "and I feel that when a technical and scientific staff gets large enough it deserves the best in logistical support. Better add a cook to that request. Higher HQ won't mind, they know an army moves on its stomach."

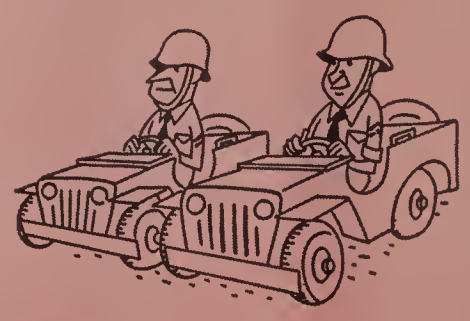
In the weeks that followed the arrival of the new augmentation, the S4 was busy requisitioning IN and OUT baskets of the three-cradle (hold, delay and defer) type. Then a crisis developed: the cook, not

LIEUTENANT COLONEL ROBERT B. RIGG, Armor, is an occasional JOURNAL contributor who also likes to illustrate his own articles, as he has this one. Now on duty in Germany, Colonel Rigg has had a varied military career, including a couple of months of service (involuntary) after World War II as a prisoner of the Chinese Communists.

ORGANIZATION—OR HOW WE GREW



BEGIN WITH A STAFF AND CO



THIS WILL REQUIRE
TWO JEEPS AND DRIVERS



PAPERWORK IS SO HEAVY THAT
TWO TYPIST ARE REQUIRED



TO FEED NINE MEN WILL
REQUIRE A COOK





THE COOK NEEDS KPS . . . THEY EAT SO ADD ANOTHER COOK



ADD TWO MECHANICS



A DOCTOR IS NEEDED



HE WILL NEED A SMALL
STAFF, CLERK AND JEEP



NOW DISCIPLINE BECOMES A
PROBLEM SO GET SOME MPS



FOR MORALE GET A SPECIAL
SERVICE OFFICER (WITH JEEP)

NOW THE ORGANIZATION IS SO
LARGE IT REQUIRES A NEW
STAFF OFFICER (S5) AND
SOME RIFLEMEN FOR PROTECTION

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one to go AWOL over an 18-hour day, just threatened plain murderous mutiny unless provided with KPs. "The man is within his rights," judged Captain Ledbucket, the S1. So Colonel Atomage signed and sent an urgent dispatch for four basics, and, after S2 pointed to the CP's exposed position and the need for security, four men were added for a total of eight. Higher HQ approved, but when the men arrived they were without even a corporal. As leadership was lacking an adjacent line unit (not HQ) was forced to lend a noncom.

A few days later Captain Ledbucket squandered an extra fifteen cents and bought Colonel Atomage another coke (soft drinks are always higher in Restricted Areas). This gesture was not philanthropic but with a purpose the S1 explained. "We now number twenty-four bodies and according to AR-7734 we have sufficient strength to requisition a medical officer."

"Can't do it. We must start saving manpower," said Colonel Atomage who didn't like his coke-bribed feeling, and who also felt the S1 had a doctor friend hard-up for assignment.

"But Colonel, think of the health of our HQ; suppose an epidemic of Mongolian-itch breaks out. . . ."

"OK this time, but we've got to stay streamlined and mobile like Colonel Cutlass said."

"That's my next point," said the S1, "the medical officer will need a jeep and driver. Also, to keep him from being a slave to his IN basket paper work he'll need an administrative officer. . . . Just one man and one officer; they'll all fit in one jeep."

"OK you win, I never argue with my staff on technicalities."

"Just one more point, Colonel. We have demanded so many special reports from our battalions that the HQ is overflowing with unfiled papers. We do need a couple of file clerks. It is a mess around here. We've got to be military and keep reports filed."

"I approve of the file clerks."

AS the days dragged on and the staff was urged into a monthly field trip, the need for more transportation was pressed before Colonel Atomage who in a blue-green period of mobile thinking approved three more jeeps with drivers.

After the third practice alert the S1, who was growing tired of being HQ commandant, laid the hard facts before the Commanding Officer at coffee call: "We can't move our CP without at least two deuce-and-a-halves. On our last alert there were twelve file cabinets left back in garrison. We also require a HQ commandant."

"Jeeps cannot carry our rations any more," remarked Captain Longton, "it is urgent that we get a truck for ration pickup."

"You are oversimplifying the entire manpower problem," interjected Major Offset, "we've got nine vehicles now of which only three are running. We need two mechanics and a motor sergeant, or we can't keep mobile!"

Captain Longton, taking a logistical reading in his coffee grounds, then sounded off. "Colonel, I agree with S1 and S3, but this will bring our HQ strength up to thirty-nine men and officers. One cook can't work around the clock, we now need an assistant cook because of our increased strength!"

On his one clean cuff Colonel Atomage drew up a manning chart and then concluded, "Our HQ organization is loosely organized and growing along non-military lines. A good first sergeant is now essential. We will be unbalanced if we don't have a chaplain for a group HQ of this size. The mess is just that, without a mess steward to kick the cooks in line. This whole problem deserves serious study."

FOR the next two days HQ Group Zebra labored in conference and discussion at the end of which all previous recommendations were approved. The discussion had been heated and many new points brought up. For example, liaison officers; it was decided three lieutenants were needed, and these parlayed into three more drivers and three radio operators. At this point it was discovered that HQ Group Zebra had no radios or operators for the liaison officers to communicate with, so manpower multiplication had to provide an SCR-399 and operator for HQ.

By the time these men arrived discipline was becoming a problem. With the HQ located in a small village in the provinces, the men, lacking organized recreation facilities and Special Service clubs, bore down on beer drinking in the local taverns and every now and then wrecked one when they couldn't breathe through the suds of a generous head. The incidents grew in number and the local natives put in so many claims that a legal officer became necessary. Of course a provost marshal had to be secured and he was only there three days when the need for town patrol and control made him import six MPs who gave the men such a rough time that morale sagged to a new low and a special service officer, Lieutenant Overdo, arrived posthaste. Lieutenant Overdo was given the additional duties of athletic officer, postal officer, PIO, safety officer, voting officer, mess officer, utilities officer, recruiting officer, billeting officer, and baggage control officer. This was all right, and he got along with only three men and one jeep. However, the "Don't Waste Garbage" campaign hit high gear and he was made Garbage Control Officer.

The historic case of Lieutenant Overdo is now a mass of detail in medical files in Washington, but his impact on organization is still felt even though the lieutenant has long since been boarded out of the service.

It all began when Lieutenant Overdo was missed at coffee call. All clerks were snowed under with paper work and had long since ceased keeping morning reports, so coffee call became the daily head-count muster formation. As Overdo was listed MIA an immediate search of the area was begun. They found the poor lieutenant in a dazed and raving mad condition in front of a formation of garbage cans which he was trying to drill by the numbers. A psychiatrist was immediately summoned and he stayed so long on the case that he and his eight assistants were incorporated as new slots into the TO&E of HQ Group Zebra. When these slots were under discussion the entire manpower problem was again surveyed and it was found that the piecemeal build-up of personnel in HQ had brought about serious maladjustment and imbalance among the seventy-one men and officers. Higher headquarters sent an investigating board down and its members listened intently for two months to the outcryings of overworked cooks, clerks, drivers and mechanics. The board's conclusion was that a new TO&E of 487 men and officers should be drawn up. It was.

COLONEL CUTLASS was promoted to brigadier general for his manpower utilization efforts and Lieutenant Colonel Atomage now commanded such an impressive headquarters, complete with sliding-wall war rooms, that it was decided to promote him to a rank commensurate with his impressive headquarters which shortly thereafter lost its two battalions to two newly created Antarctic corps. Eagle Colonel Atomage had an admirable, smooth-working staff, and as it was considered a shame to let all his manpower go to waste it was decided to rename HQ Group Zebra as Hq Command of Cold Wars on Any Front—and leave it where it was.

THE SHOT HEARD ROUND THE WORLD



MORE PICTURES OF THE 280 GUN

The 280 gun battery (two guns) has nine wheeled vehicles to support it. These include eight 5-ton trucks and one 2½-ton shop van. Two of the 5-ton jobs carry men and equipment. The other six have monorail hoists and ammunition racks. Four of these tow 2-wheel ammunition trailers; another tows two 4-wheel generator trailers, each of which houses a 30-kilowatt generator. The sixth carries four shell carts. *(Pictures courtesy of Steelways, April 1953, published by American Iron and Steel Institute)*



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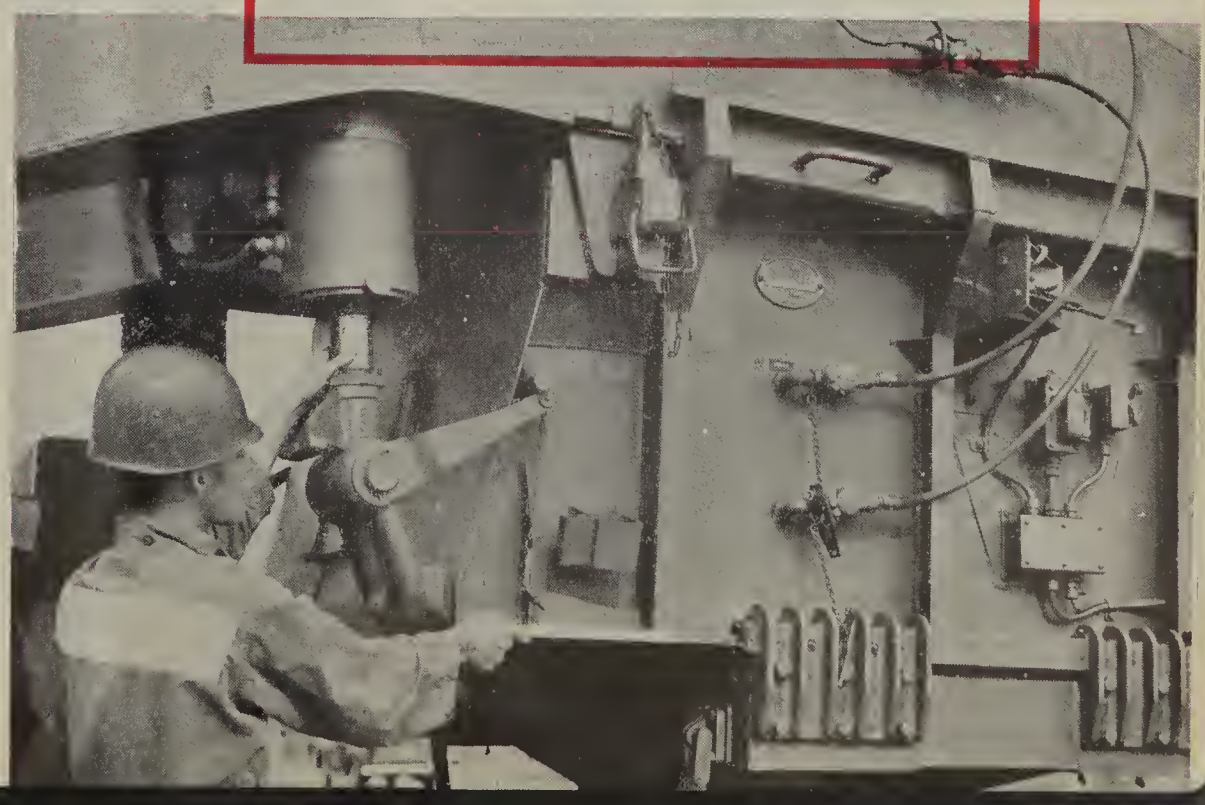
The T-10 transporter weighs more than 85 tons and is 84 feet 2 inches long. Each of the two 4x4 units is powered by an Ordnance-designed 6-cylinder opposed type, air-cooled engine with a gross horsepower rating of 375 at 2800 rpm. The front axles of both units are driving axles. The transmission is manually controlled with an Allison four-element torque converter.

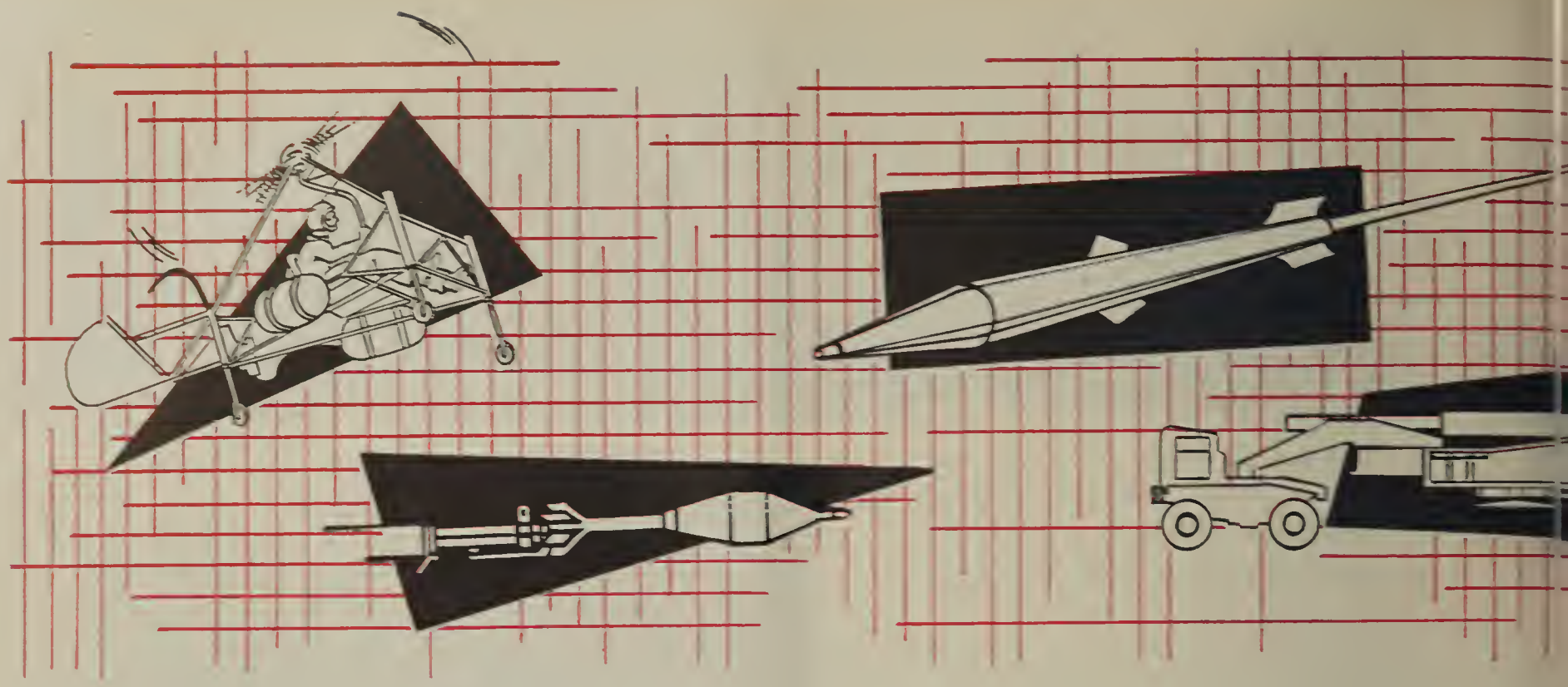


The transporter can move forward, backward or sideways and can make a right-angle turn in a 28-foot street. The service brakes are air actuated, internal expanding. The air brake systems of the two chassis are connected and a double check valve in the rear unit's service line makes it possible for the driver of the front unit to control the brakes of both units. A similar hookup controls the throttles of both units.

Production of the big gun was a mammoth task requiring special machine operations and the production of special equipment. The main body, weighing 1600 pounds, was turned, bored, threaded externally and internally, with an accuracy of two one-thousandths of an inch between three bores and one-thousandth of an inch per foot parallelism between axes. A finished product weighing 250 pounds had to be machined from a steel block weighing 1600 pounds. The top carriage of 38½ feet has the largest weldment in the assembly.







IMAGINATION IS THE YEAST THAT WILL RAISE THE DOUGH

New Tactics for the New Gear

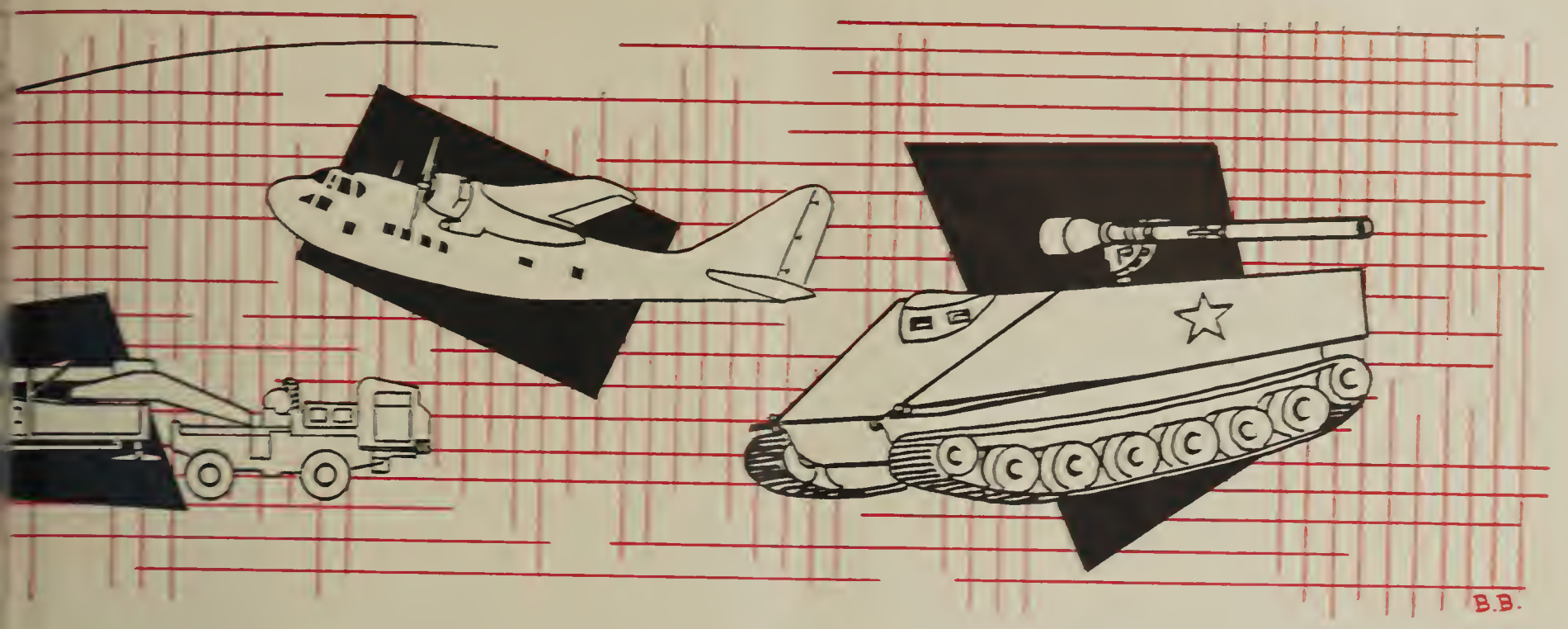
COLONEL MELVIN ZAIS

COLONEL MELVIN ZAIS. Infantry, is presently chief of a field training team assigned to the Turkish Army. A member of the original 501st Parachute Infantry Battalion, he served during the Second World War in the 82d Airborne Division as a battalion commander and regimental executive officer. Before going to Turkey he was an instructor and chief of the Airborne Section of the Command and General Staff College at Fort Leavenworth.

A FRIEND of mine once received a beautiful combination fly and casting rod set. For two days he was lost in dreams. He saw himself wielding this new possession in a Northern stream. Casting upstream and allowing the fly to drift down—stripping line—testing all of the riffles, pools, and quiet eddies that abound in good fishing waters.

The dreams lasted only two days because that's about how long it took him to wake up. The hitch is that he had never used a fly rod, had never fished a mountain stream, and all he knew about stripping line and fishing in riffles and eddies was what he had read in *Field and Stream*. He wouldn't even know a riffle if he saw one. Which brings us to the point.

We read in COMBAT FORCES JOURNAL or the service newspapers of the various developments which stream through the archives, of the rapid advances that are being made in all the fields of matériel developments. We read about the helicopter and how its potentials are beyond the realm of imagination; about the new antitank weapons which in the hands of a single soldier make the heaviest tank as vulnerable as a fish in a bowl. about the assault aircraft which can land in a peanut patch and the convertiplane which can land on one of the peanuts: about track-laying, all-purpose vehicles which weigh less than six tons and which can mount 105mm recoilless weapons. bazookas, flame throwers or just carry men: about a new light, flat-bed infantry carrier that weighs less than 800 pounds and will go almost anywhere that the doughboy will go, thus taking the load off his back. We read



about all these things and we begin to feel the same way as my friend did about his new fishing rod. The first reaction is one of extreme delight and we begin to visualize all the things that could be done with these new developments but again the dream is blocked out by reality. All we know about them is what we read. We don't know how they are to be used in battle.

We can try to find out how someone else has used them or conceived their possible use. But we soon learn that no one really knows how to use these pieces of new gear and weapons or what impact they will have on our tactics and methods of combat. They may be coming off the assembly lines in quantity soon and we will probably superimpose them on our existing organization until our Army will appear to have "growed up," like Topsy.

Is that the right way to do it? Should we not look at our present organization and concepts with a critical eye and with the idea of creating organizations that will fit these developments?

Many bull sessions at which ideas about these new weapons have been kicked around convince me that some of these things ought to be brought into the open where their merits can be debated.

The two items which arouse the most interest and which seem to exert the greatest impact on future warfare (aside from atomic weapons) are antitank developments and the possibility of moving the infantryman and all that supports him by air. As a matter of fact, these two developments are complementary because the development of light antitank weapons minimizes the restrictions on use of air to move completely equipped ground forces. When we have enough Davids with slings we can leave the Goliaths at home.

IS not our greatest deficiency the failure adequately to experiment with new developments in an atmosphere of pure research and quest for knowledge, unaffected by traditions, preconceived notions and branch pride? New developments fall far short of their potential capacity unless methods for their use are devised and tables of organization and equipment altered to give full use to them. This is not an original idea. The foreword of FM 100-5, *Field Service Regulations—Operations*, includes the following statements:

"The fundamental principles of combat remain unchanged, but doctrine and tactics must be modified with each major advance in weapons, transportation, and other devices applicable to warfare. . . . The analysis of the impact of new developments upon the doctrine and tactics of the combined arms must be accurate, constant, and detailed. Military thought must be realistic and alert to modify the doctrine set forth in these regulations in the light of new developments. A considered balance between the conflicting dictates of secrecy and the dissemination of information requisite to the development of sound doctrine of employment must be maintained, if timely realistic employment is to be practicable."

A rejoinder to this might be a statement to the effect that we have effective developmental agencies at Department of the Army and Army Field Forces levels. There are four development boards which are constantly testing and evaluating new items of equipment and preparing military characteristics. They thoroughly field test every item of equipment that is their responsibility.

But these development boards are often faced with an insoluble problem since a proper evaluation of any weapon is associated with the way it will be used. Recently I saw a letter from a section chief at one of the development boards in which he stated, "Any thoughts or ideas you or others at Leavenworth may have on possible uses of this family of vehicles would be of considerable interest to the Board and to the School in helping us arrive at a logical evaluation of them."

OBVIOUSLY they at their desks and we at our desks are faced with a problem which is almost impossible to solve in an academic atmosphere. Are we to gaze at our navels and come up with some cataclysmic concept, or will we heed the advice of the psychologists and put our subconscious minds to work by repeating the problem before retiring and wake up with the solution? That won't work. We are faced with the fact that concepts and doctrine are affected by the development of instruments of war, and the development of instruments of war is in turn affected by concepts of employment. There is a reciprocal action between the two. Combat has determined everything pertaining to arms and equipment and these in turn have modified the way we fight. That is the whole technique of war: on

the one hand the instruments, and on the other their use.

We cannot adequately develop unless we know the contemplated use and we cannot fully exploit the potential use until we have the development. This paradox cannot endure. Like most positive statements, this one is not completely true. It is not a question of being able to do either one. The question is: how are we best able to compromise between the conflicting requirements and are we doing the best now? The effort expended on technical developments appears to far exceed the effort expended on development of doctrine and techniques. We are out of balance. What can we do to bring back the balance?

FIRST and most important we can establish units (from our existing ZI troop list if necessary) whose primary mission is to field test concepts for employment of new developments. Now we don't mean a unit that will get a new radio and send a squad over the hill to see how far the voice will carry, or will set it under a drain pipe to see how long it takes for it to become waterlogged. Those things can be done by the various test boards. We mean a unit, commanded by imaginative leaders at all echelons, that is given the "go" sign to use the weapons and equipment in a variety of ways, conventional and unconventional. It would be a unit which presumes that nothing is true because somebody said it was. Its mission would be to prove nothing but to discover everything. It would make mistakes and run up blind alleys and there will be plenty of traditionalists who will say, "I could have told them that before they started." But it will also learn a lot for the benefit of the whole Army. Lots of us will not accept ten per cent of what such tests reveal if the conclusions are in conflict with our existing opinions but even the ten per cent of what is accepted may be enough *yeast to raise the old dough.*

Here are some specific suggestions for testing infantry and armor organization and weapons plus examination of certain possible improvements in our reconnaissance methods.

Infantry

Within infantry divisions and smaller units we should test:

The possibility of substituting recoilless weapons, capable of defeating the heaviest armor, mounted on light track-laying carriers or the new 8-ton airborne tank or a combination of these for the medium tank and thus eliminating the medium tank company from the infantry regiment and the tank battalion from the division.

The use of helicopters armed with rockets or recoilless weapons which could continue to fire into enemy positions until the last few seconds and thus fill the gap between the lifting of artillery fires and the arrival of the assaulting doughboy at his objective.

The organization of provisional small units within the division armed with bazookas and capable of being assembled from the various subordinate units into a larger force to counteract a major armored threat from a known direction. At present there are over 550 bazookas and 120 recoilless rifles organic to an infantry division but they are spread out so thin that without much planning they can't be employed in mass. The use of helicopters would make possible their rapid grouping and disposition.

The use of light, track-laying, self-propelled antitank guns in the reconnaissance company of the division; such guns are capable of being lifted by helicopter and placed far in advance of the division, thus enabling the reconnaissance company to operate independently for a sustained period of time.

Development of a light, flat-bed infantry weapons-carrier for the jeep which is getting heavier and more cumbersome.

The use of helicopters to move battalions and regiments into the attack to seize critical or otherwise inaccessible terrain, to crossing rivers, to leapfrog units in the attack, to mobilize reserves, to shift units from an unthreatened portion of the front line to the area of enemy concentration and to support all front-line units logistically by dumping supplies as far forward as companies.

The feasibility of a "square" division with four organic regiments. At the post-war infantry conference in 1946 there were many exponents of the square division. Their contention (and a valid one) was that an increase of one regiment in each division would not cause a proportionate increase in the service and supporting troops of the division and would thus make available more front-line infantrymen in the division slice. All who served in an infantry division during World War II will recall attachment of an extra regiment to the division for prolonged periods without a resultant increase in supporting service troops. Most of those who favored the four-regiment concept were airborne veterans who had been required to defend in a perimeter formation. Defense in a perimeter formation dictates at least four regiments so that at least one regiment can be in reserve. Otherwise two regiments have to defend on at least a 180-degree perimeter and may find themselves fighting in opposite directions at one time. A perimeter defense may not be confined to airborne divisions in the future.

There have been many arguments for separate infantry battalions in a division, each administratively self-sufficient and led by three tactical combat team headquarters. It has been contended that today the division commander fights three regiments instead of nine battalions and thus loses a great degree of flexibility. Granted this could be remedied by attachment; however, human nature is a factor which must be contended with and regiments are reluctant to release battalions to other regiments and are incessantly clamoring for their return. Mobilization training programs do not allow sufficient latitude for a division commander to practice the rotation of battalions between regiments since each regiment is intent on integrating the efforts of its own organic units. Often regiments are retained in reserve when two battalions would be more suitable. Often two regiments are assigned an attack mission and zones which could more appropriately be handled by a four- or five-battalion formation. The requirement for task force organization could be easily met by use of one of the tactical combat team headquarters. Most important however would be the flexibility of mind which would be encouraged by this kind of organization. Why should an armored division be more flexible than an infantry division?

THE reduction of unnecessary overhead to include manpower, equipment and vehicles. The Hodge Board discussed this problem at great length and the general conclusions were that there is much too much fat throughout all organizations and this does not exclude the infantry. Obviously all items not absolutely essential must be eliminated or scaled down. Tremendous emphasis has been placed on creature comforts, though we know that sturdy, self-sufficient men win battles and wars. Many nonessentials may be classified under quantity rather than type. There are many types of equipment which are essential. However, the quantities reflect the desire "never to be caught short." It is impossible to have enough of everything to meet any eventuality and staff planners as well as combat operators must be willing to accept a calculated risk. General Patton once said that "a

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man who gave counsel to his fears would never get up in the morning."

Armor

In armor there is a great need for further experimentation in the field of tactics and doctrine and determination of requirements to guide matériel development and production. Consider some of the deficiencies experienced armor soldiers have expressed at one time or another. Tests can be devised which might correct some of the difficulties.

The present armored division is too road-bound because organic administrative support is on wheels. Thus it is directly affected and controlled by the mobility of its logistical support. For example, there are 839 2½-ton trucks in the armored division. Despite armored doctrine and textual insistence that the division is not road-bound there are very few places in the world where the armored division can stray from a good road net.

It is not an economical force. In order to sustain the striking power of 216 medium tanks and 69 heavy tanks it has a strength of more than 16,000—a large number even granting the presence of four armored infantry battalions, division artillery, and a reconnaissance battalion—all designed to support the advance of the tanks.

It is an unwieldy force. In addition to the dragging effect of the wheeled vehicles the tail is all out of proportion to the body. If the vehicles of an armored division were evenly spaced 75 yards apart on one road, the division would extend for 200 miles. If the vehicles of each of the combat commands were spaced 75 yards apart on a separate road, each combat command would stretch for 35 miles. The armored division is as unwieldy as a ten-pound hammer with a forty-foot handle—somewhat difficult to wield.

At a time when the gun seems to have gained ascendancy over the heaviest armor it still uses heavy forty- and fifty-ton tanks.

What can be done about these weaknesses in the armored division and what tests could be conducted to streamline it? The use of aircraft and the effect of antitank developments seem most promising fields of investigation. Would not the use of a few squadrons of assault aircraft or helicopters appreciably minimize the amount of transportation which is now organic to an armored division? If such craft could deliver logistical support from rear bases to using units the division would gain real flexibility and would not be tethered to a tail so ponderous it can't be wagged.

Suppose these logistical support aircraft are alternately used to lift infantry units which accompany the armored division. One or more infantry battalions could be lifted far in advance of the armored division and there seize critical features (in Exercise Longhorn the 1st Armored Division used light aircraft to move a company of infantry for this purpose). Infantry units could be lifted from rear areas to take over the mopping-up job in cities and congested areas while armor scurried forward to wreak havoc with enemy rear areas. The use of aircraft would release the need for a great deal of ground transportation. One armored infantry battalion now requires 142 vehicles.

Reconnaissance

Many experienced officers are dissatisfied with present reconnaissance procedures in both the infantry and armored divisions and in the separate recon outfits used by corps and armies.

Their dissatisfaction is with the lack of speed and mobility and independence of action of reconnaissance units. In the old days, when infantry was on foot and cavalry was on horses, the horse could travel twenty miles while the infantryman traveled ten miles. The cavalrymen could get out and come back to report or replenish supplies and go out again while the infantryman continued his uninterrupted march. Cavalry was not confined to the road net and if necessary it could live off the country for an indefinite period of time. In these days of mechanized war when the armored divisions are always motorized and the infantry divisions are often motorized, the cavalry reconnaissance outfit is hard put to stay in front of the column it is screening. There is not the proportionate increase in speed that existed between horse and man. If the armored reconnaissance unit does get well ahead—where it belongs—it is dependent on a tenuous, unprotected line of communication to maintain its heavy requirements for logistical support. If it runs into something too big to handle it can pull back and return to its parent unit only if the road net to the rear is secure. It cannot stay and fight, or hole up for a while or dart off in a different direction because it cannot live off the country as could the horse. It cannot participate in forays such as Jeb Stuart made famous. One alternative is for the parent unit to come to its rescue. But this may require a fight in a different direction and locale than the campaign dictates. In essence then, we need lighter, more mobile, faster reconnaissance that is independent of ground lines of communication and can operate an appreciable distance away from the force which it is supporting and for a considerable period.

The answer seems to lie in developments discussed earlier. The integration of lighter vehicles carrying powerful guns and the use of aircraft capable of lifting these weapons and vehicles. Let's suppose that we organized a reconnaissance unit whose heaviest armament was a self-propelled, track-laying vehicle with a 90mm gun, weighing, complete with crew and ammunition, less than eight tons. Suppose we carry our recoilless weapons, our rockets, flame throwers, machine guns, mortars, and infantrymen in light carriers weighing less than four tons. Then suppose we use helicopters to lift this unit 50 or 70 miles to the front and flanks and support them logistically by helicopter. Suppose some of the men fly one-man helicopters which they can continue to use. This unit could fight, get information and harass the enemy to an untold degree. It could be supported logistically by its organic helicopters and it could be withdrawn by air if necessary or it could quickly be moved to another locale. It would possess all the attributes of cavalry which have been sacrificed in this machine age and it would retain the great fire power of the machine age.

IN October 1940, Hanson Baldwin struck at the core of military lassitude when he said:

"Many of our present tactics stem from an age that is gone; the hand of tradition still lies heavily upon our military thought processes. We must renovate our thinking, for our final citadel is the citadel of the mind. It must be broad and spacious and strong, receptive of new ideas."

Although applicable at the time, Mr. Baldwin would be stepping out on a rather shaky limb to make that statement now. Our Army today is feverishly attempting to look to the future in many fields. It cannot be accused of lassitude. But we must be certain that our obsession with the mechanical device does not leave us where we were in 1940. The technological and scientific developments of the past twelve years demand a revolution of our tactical concepts. We must learn to use all that we have and we must be as receptive to new ideas in the field of organization and tactics as we are in the field of matériel.

Get a Prisoner

LIEUTENANT COLONEL JAMES H. HAYES

DURING periods of attack there's a constant flow of prisoners to the rear. But during static periods, the flow is practically stopped. Sometimes in such conditions a raid specifically designed to capture one or more prisoners is necessary.

There was one such raid in 1944 before the Third Army assaulted, isolated and seized Metz, that is typical.

Perhaps a week had elapsed since the division G2 had received a prisoner. But to get an estimate of enemy strength he needed a prisoner.

So the 2d Battalion, 317th Infantry was given the mission of capturing a prisoner. The static and quiet defensive along the Seille River during the preceding weeks, the mined nature of the positions on the opposite banks, the swollen condition of the river because of heavy rains, and the expert camouflage techniques of the German defenders had all contributed to the unproductiveness of previous attempts.

The mission was assigned to a special ten-man patrol. The battalion commander emphasized that there would be no unnecessary haste in the preparation for the operation. A careful and detailed plan would be made to remove the possibility of failure. The stress on careful planning with no unnecessary haste stemmed from a belief that to simply send out patrols in a random fashion with the mission of capturing a prisoner would fail.

The plan provided for the following:

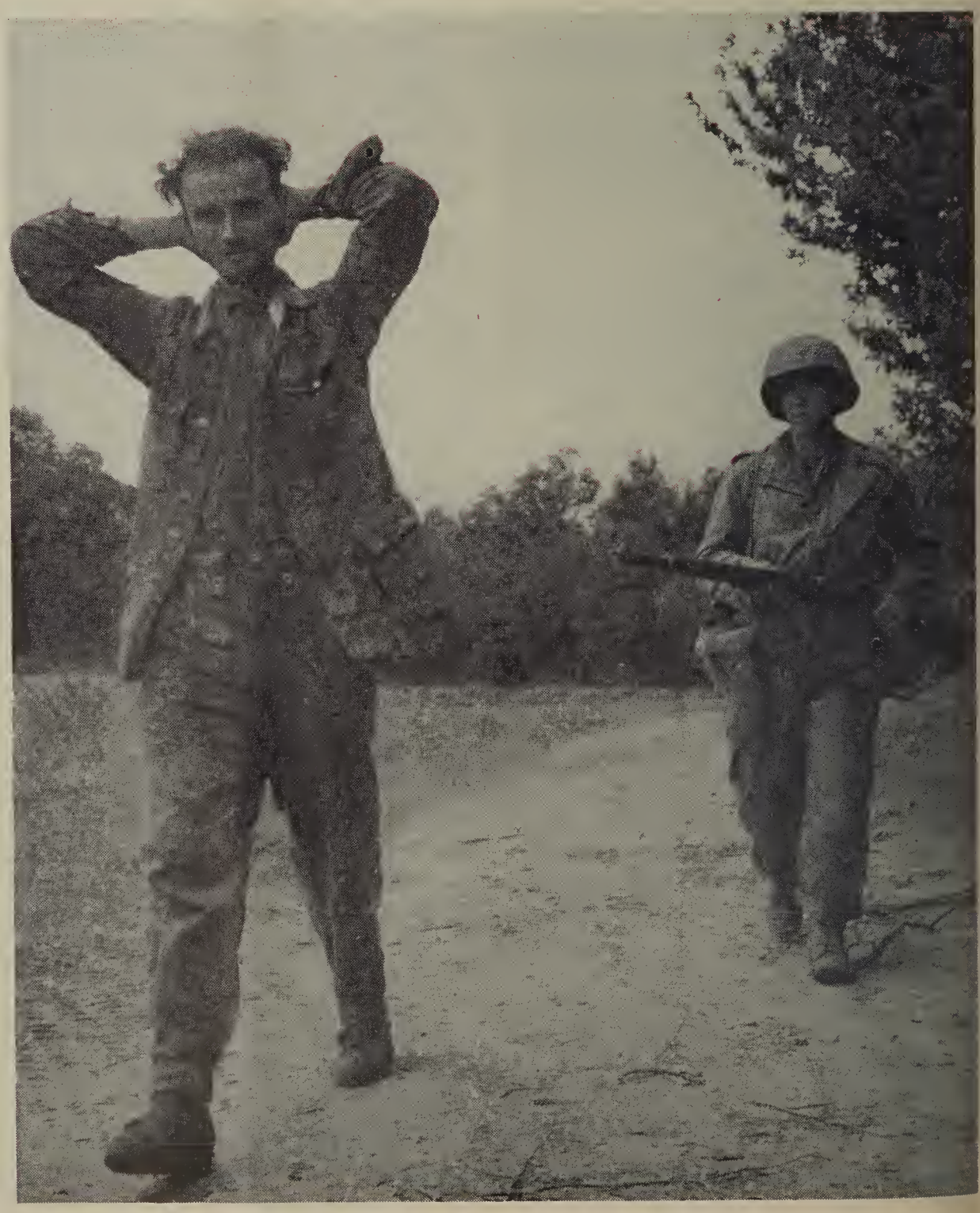
(1) Reconnaissance to locate a PW (apparent but necessary).

(2) Thorough reconnaissance of the area of operations by patrol members.

(3) Preparation of a fire plan to isolate the future prisoner from any assistance.

(4) An adequate communication plan to control the fire plan.

Reconnaissance first locates a potential supply. Then you make plans: routes in and out, fire support, communications, transportation. Then you rehearse. And finally you go out and bag your surprised victim.



LIEUTENANT COLONEL JAMES H. HAYES, Infantry, served in Europe with the 80th Infantry Division during the Second World War. A 1942 graduate of the Military Academy, he is now on duty at the Pentagon.

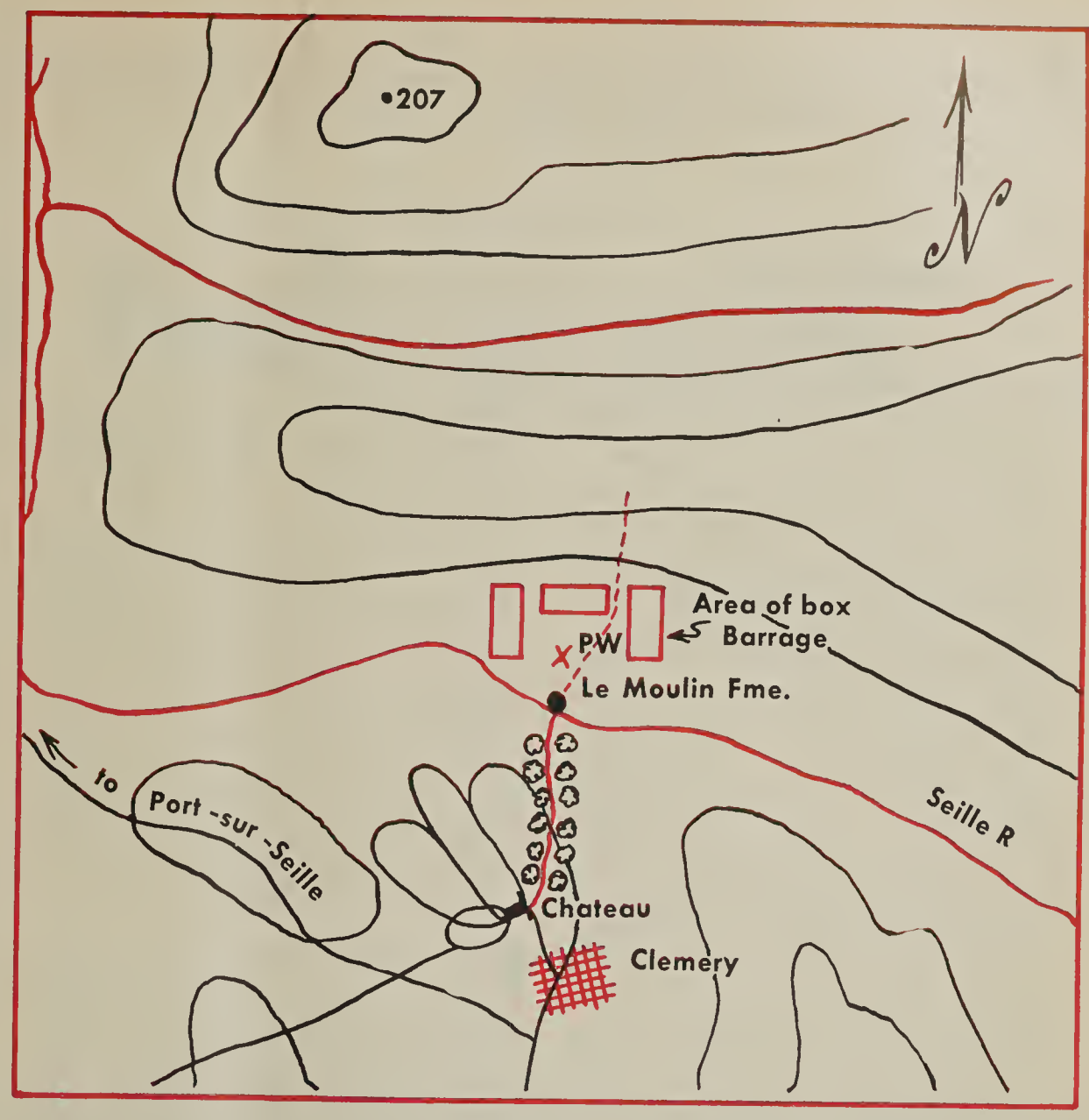
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(5) Provisions for obtaining, hiding, and using boats to cross the unfordable Seille.
(6) Some sort of "persuader" to bring the PW back alive.
(7) Provisions for quickly transporting the PW out of the danger area once we had him on our side of the river.
(8) Time for a rehearsal of the operation in the rear area under similar conditions of terrain.
(9) To launch the raid at night for maximum secrecy and surprise.

Approximately eight hours after the word had been passed to the OPs to locate an occupied enemy foxhole, a battalion intelligence team operating from a mill (Le Moulin Fme, see sketch) had located one some fifty yards from the banks of the Seille. The location was verified and the various patrol members were sent to the OP to see it.

Reconnaissance indicated that a covered trail existed from a chateau NW of Clemery to the mill. Reconnaissance verified that jeeps could use the route and that rubber boats could be brought up during daylight to within thirty yards of the river.

Further study showed that a small path on the opposite bank lay to the east of the enemy foxhole. The path could be used to guide the patrol to within a short distance of the objective. A careful study of the opposite bank showed no indications of mines. This fact remained uncertain. It turned out that there were none.



THE artillery liaison officer was called on for assistance in the preparation of a box barrage. The adjustment took place during the day of the operation and was done in as random a fashion as possible to preserve the secrecy. The guns were to fire at a maximum rate for two minutes—on call from the patrol leader. Thereafter, the rate was to be just enough to interdict the area. To protect the patrol the barrages were kept a hundred yards from the foxhole.

To control the fire plan two lines were laid from the 2d Battalion CP to the mill during the night. Provisions were made for carrying the lines and the attached telephones across the river with the raiding force. In addition, on the night of the raid, the communication from the patrol to the battalion switchboard to the artillery was kept open to insure speed in the transmission of messages and requests. An alternate means of communication was provided by an SCR-300 to the 2d Battalion CP. A flare signal plan was also provided in case of failure of either of the other means of communication even though flares were not a reliable means of communication.

To persuade the prisoner to come along, a large loop of barbed wire with a carrying handle was made. This was to be slipped over the prisoner's neck in case he decided to demur in the request to accompany the patrol peacefully. This bit of lore had come from World War I experience. It proved unnecessary to use the "persuader."

A jeep was spotted in the road from the chateau to the mill with a waiting driver and guard. Additional transportation was spotted for the return of the patrol.

A rehearsal was conducted in the rear area the afternoon of the day the raid was to be executed.

The operation was launched at 2000 hours. The plan worked as anticipated and the PW was safely across the river in less than ten minutes. Within a half hour the prisoner was in the hands of the regimental interrogation team. To plan, rehearse, and execute the raid required about 36 hours. There were no casualties.

Several lessons were apparent.

THE failure of some previous attempts is probably attributable to an understandable desire of higher staff officers to get the prisoner immediately. This resulted in rushing lower units so that they did not have time to prepare a good plan. Time for planning saves time in the long run. Staff officers must not underestimate the time required for smaller units to prepare such operations.

In such actions the most important single item is actually to determine where a potential prisoner is. This is simply the old principle of war applied to a patrol type unit. To simply give a patrol the mission of bringing back a prisoner results in random wandering around in the darkness and more likely than not returning empty-handed.

The plan must be clear and simple.

Once an operation of this type has been accomplished it provides a basis for future plans. A critique at the end will readily bring up details that can be improved. The basic plan need be modified only to fit normal variations of terrain, obstacles in front of the enemy positions, and the number of prisoners desired.

There is no substitute for thorough planning and vigorous execution.

Promotion Solution

An officer's practical ability and theoretical knowledge should carry as much weight as efficiency reports

Lt. Col. Truly Veritas

THE policy used in selecting the recent list of lieutenant colonels for promotion apparently considered eligibles to a cut-off date of temporary rank sometime in 1945. Quite obviously a very large number of those whose date of rank qualified them were passed over by a vigorous screening process.

The bases for selection, or rejection, are not clear, certainly to me. I have heard, on what appears to be good authority, that it was a combination of efficiency reports, age of those eligible, and branch of service. Whatever they were, the list was, as one general officer said to me, "a shocker." When I recovered from the shock of not finding my own name, I began to look for those of my most admired contemporaries who were in the range of eligibility. While several were included, I found several amazing omissions.

I decided to make an analysis based on personal observation and acquaintance. Of those lieutenant colonels I knew whose date of rank made them eligible for promotion, I listed the ten I would consider most qualified on the basis of demonstrated command and staff ability, and combat record. Then I checked those names against the list. Three were on the list. Seven were not! Naturally there were many names on the list that I did not know. Many others I had not seen or observed for years. But many (fifty or more) I did know well, and of that large group only three, in my opinion were in the same class with the seven whose names did not appear.

To check my prejudice or bias, I mentioned these seven names to other more senior officers. Without exception, they considered their acquaintances among the seven as being at or near the top of their list of lieutenant colonels.

I studied the list again. I soon thought I perceived a certain pattern. My seven, while differing widely in most respects, are all highly intelligent officers, with a lot of initiative. They are "operators" who do things and get things done. These qualities include a certain amount of aggressiveness which inevitably results in clashes with some people. Were these clashes reflected in the efficiency reports of my chosen seven?

Among those on the list that I knew were many capable, efficient officers who would never seek additional work or, indeed, realize that there was additional work to seek. The list, then, seemed to favor the unimaginative but solid man.

Some might suggest that, giving due credit to my natural prejudice in this comparison, these latter would fit in the wholesome category of "intelligent and lazy" officers, while my seven would qualify as "intelligent and industrious" or even "stupid and industrious." If that be so, there are many senior officers who share my lack of objectivity.

WHAT are the consequences of this to to the Army? We need not concern ourselves about the feelings of the individual who is not promoted. What does matter is that the Army has, in the past couple of years, promoted men of doubtful qualifications for the rank of colonel, while holding back capable, and even brilliant, men. This policy, being based at least in part on selection, has dealt a serious blow to the morale of some of the best men in the Army.

Something needs to be done. It is obvious that no policy can be found which will be completely fair to every individual. But it is possible to adopt a logical, consistent and comprehensible policy. There can be several solutions. I offer the following as the general outline of one:

Remove the cause for widespread complaint. I doubt if this can be done save by reviewing the list of those passed over, and promoting all who have not clearly and unquestionably demonstrated their lack of qualification. No new policy can accomplish its purpose unless the inequities, or fancied inequities, of the old have been eliminated.

Adopt a procedure (outlined below) which will assure that individual accomplishments and capabilities are clearly recognized as bases for advancement, in addition to the always necessary efficiency reports. Such a procedure should include the following factors:

(1) The ability of an individual to achieve results can be determined easily in command assignments. Combat tests, command inspections and such can be used without creating more administrative work. Naturally the rating system would have to allow for the case of the officer who inherits a good unit, as well as that of the one who finds himself saddled with a poor one. Similarly it would have to be applicable to officers in subordinate command or staff positions. There are ways to do this. The important thing is that this promotion factor would be based on incontestable facts and figures resulting from competitive inspections or tests, rated on clearly understood and equitable bases.

(2) The theoretical knowledge and capability of an individual can be determined by a written or oral examination. This could take any of several forms, and could be given periodically.

(3) Finally, one-third of the total promotion rating would depend upon efficiency reports. This is not enough to hurt seriously a person who has had a personality clash with a single superior. Yet it is sufficient to assure adequate recognition of the individual's ability or inability to get along with, and to satisfy the requirements of higher authority.

When the policy is adopted, it should be published so that all will know where they stand.

If it should become necessary to change the policy, let those affected know how and why; and before, not after.

THERE are probably other schemes that would work as well or better than these. I have undoubtedly been influenced by the fact that such a scheme would have clearly recognized measurable improvements which took place after I took over my last command (and which were ignored, I suspect, by higher authority). Whether or not such recognition would have affected my failure to appear on the last promotion list, I can't say. But under such a policy I would know the factors that were considered. And most important, I would know that my promotion would depend on my proven capabilities, as well as on efficiency reports, in comparison with similar records of fellow officers of like grade and service.

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An unusual spy story: The work of the Army's CIC that sticks to facts—without loss of the thrills that chill

Battle Underground

THOMAS M. JOHNSON

THE neither short nor simple annals of military history frequently ignore the important fact that the battle above ground, between armies and air forces, is usually preceded and accompanied by a hidden battle below the surface of accepted events, between secret intelligence and counterintelligence, which frequently influences the outcome of the battle above ground. And pursuit of that truth to its ultimate foxhole affords sidelights on history that are illuminating, surprising, even rather exciting.

As, for example, the story of the two battles that were fought when the 6th Army Group, the American Seventh and the French First armies, crossed the upper Rhine and thrust into the heart of Germany. The battle above ground is well known, but not so the battle underground which was a struggle between spy and counter-spy that is scarcely excelled in unpublished achievements of American secret service. Its cunning thrust and counter-thrust began with the macabre mystery of the master spy buried in a lonely wood, continued through many adventures like those of the spy for the Americans whom Hitler decorated, and ended in the great military victory above ground.

But before that successful climax, our spy hunters had to meet a serious challenge when, in the chill autumn of 1944, American and French forces scaled the Alsatian mountain crests. They looked down upon the most celebrated river-defense line in all Europe, behind which lurked the waiting *Wehrmacht*. Before the Allies could force a crossing to the Rhine's east bank they must regroup forces and replace heavy losses from fighting just ended, and from frostbite, flu and trench foot just beginning.

At this ticklish moment the German military intelligence launched an artfully-planned large-scale undercover operation. It was a potentially dangerous plan to disrupt our build-up and ascertain our plans for the Rhine crossing. Deceitful even in its name, *Abwehr,* which means defense, this doubly offensive organization had left the whole region we had just entered fairly crawling with "stay-behinds." These were secret agents in every disguise or none, with carefully memorized cover-stories to account for

A German spy, tried and convicted by a court, is blindfolded by an American soldier before facing a U. S. firing squad.



THOMAS M. JOHNSON is a longtime collector and writer of true "spy" stories. He was a war correspondent with the AEF in the First World War and later wrote a book on the AEF's battles. His interest in spies and saboteurs led to the collection of many stories of the work of U. S. intelligence and counterintelligence agents in World War I. These appeared in magazines and later were gathered into a book: *Our Secret War: True American Spy Stories.* His first appearance in *Infantry Journal* was in 1933 with a spy story. Another appeared in 1936, and in 1941 in collaboration with Fletcher Pratt he wrote the story of World War I's "Lost Battalion." This is his first appearance in COMBAT FORCES JOURNAL.

themselves if questioned. Most were Alsatian traitors to France, including criminals released from jail, who blended into their background like copperheads among autumn leaves. Some were former Gestapo torturers and bloodhound trainers; most dangerous were a sprinkling of veteran *Abwehr* agents. All had been coached as saboteurs and spies.

Immediately after we moved in, they were to emerge from their hiding places. The saboteurs were to strew our roads with infernal machines cunningly designed to blow up our trucks or puncture tires, and to plant bombs resembling lumps of coal in our locomotive tenders. The spies had been taught to recognize our units by shoulder patches and vehicle markings. They were to report American movements and preparations to operators of portable radio sets who also were left secreted behind our lines. These would flash their reports, by code and wave-length agreed upon, across the upper Rhine to the waiting *Abwehr*.

THE plot failed because of the Counterintelligence Corps. This unique semi-secret outfit comprised mostly former lawyers, detectives and newspapermen, but welcomed such oddities as a bibliophile musician, a mountain climber, a midget-auto racer and a tropical-disease specialist, if they possessed the special cold courage and ingenuity required of the soldier-operative. The Corps kept the Army's secrets from enemy spies, and in so doing, saved more American lives than anyone except, perhaps, the medics.

The CIC had reached Alsace on the heels of the retreating Germans, bearing a grab-list of residents the French reported had helped the enemy during their four-year occupation. But CIC soon found this list didn't begin to reveal the menace to our security that Alsace held. They found they had to trap and nail to the barn door a superlatively verminous lot of Nazi agents. But the trapping took shrewdness and patience. It began with linguists of CIC and its French equivalent, *La Service de Securité Militaire* (SSM), systematically pumping loyal French and Alsatians for information of the disloyal and of their German seducers, and noting it upon cards which were rushed to the forward detachments.

MANY were delivered that November, 1944, to a small hotel on the *Grande Rue* of Remiremont, a small town amid the Vosges Mountains. Outside, a swinging sign blazoned a rampant *Cheval de Bronze,* but the Bronze Horse had quietly become headquarters for the 206th CIC Detachment. Behind locked doors and black-curtained windows the Corps assembled its agents, of assorted ages, racial origins and appearance, some wearing uniform without insignia, others in various guises and disguises. The dining-room had been converted into a laboratory for spy-detection by introducing photographic equipment, file cabinets and a swelling card index. From this latter Major Henry Carter, a quiet man of intelligent aspect, drew a white card bearing a red check. He handed it to a tall, dark youth whose muddy o.d. bore no betraying mark.

"Here's an ace," he said. "Bring him back alive so we can pump him. Hurry!"

Special Agent Paul J. Morton read the typewritten legend:

TALLEMANN, FRANZ: Age 53; height 6 feet 2 inches; thin, eyes gray-blue, hair gray; clean-shaven; face intelligent, even refined. Wears dark clothing, high collar; neat and precise. Distinguishing feature:



"The Duck"—Lieutenant Raoul Canard of the French military intelligence. *"Lingerie? Of a perfume? Bon!"*

limps on right leg. Alsatian-born; in German Army in World War I. Afterward came to Remiremont as schoolteacher. Suspected pro-Nazi before German invasion in 1940. Afterward became *Sturmbannfuehrer* in Alsace Storm Troopers and important informer for Gestapo. Suspected of extensive espionage. Public Enemy No. 1 of Remiremont area. Hobby: sketching. Look for woman angle.

What proved to be one of CIC's most macabre mysteries confronted Morton. Born 26 years earlier in Marquette, Michigan, he had lived mostly in France and Belgium, whose languages he spoke. Now he hurried through streets rejoicing at *la liberation,* to French *Gendarmerie* headquarters.

"Tallemann?" repeated the chief. "That *salaud de traitre* fled just before you Americans came. I'll take you to his house."

The substantial building near the *Mairie* had clearly been abandoned hurriedly. Its fireplace was filled with ashes of burned papers, but in the library, still intact, were many charcoal sketches of churches and cathedrals in French and German frontier towns, unsigned but dated in the late 1930s and early 1940s.

"Then the Nazis came," pondered Morton. "He didn't need to make any more of his 'sketching trips,' first to Maginot Line strongpoints, then to Germany to deliver the notes hidden under the sketches. An old spy strick, but it worked."

"Here's that woman angle," said the chief, producing filmy undergarments, delicately perfumed. "She was petite, chic, lived here with Tallemann. I don't know her name, but once I saw her with a fat man with bristly hair and glasses, Dr. Heinrich Schultz of Plombieres."

"A lead already," rejoiced Martin as he drove to that quaint resort town. He found it thronged by young *Maquisards,* preparing for an execution.

"Un vache de Nazi," they said. "A Doctor Schultz."

"Let me have him," exclaimed Morton. Then he explained: "Before you slaughter the 'cow,' you must first milk it dry."

Under his skillful questioning, the quaking Schultz admitted having been Tallemann's go-between with Alsatian informers, especially girls he bribed or blackmailed into disclosing hideouts of *Maquis* leaders. Then the Gestapo caught, tortured and shot them. Yes, Tallemann had done more important undercover work, but of that Schultz knew nothing. Where was Tallemann? Schultz hesitated, then when pressed, said the fleeing spy was probably saying good-bye to Julie Frapelle, his French mistress in nearby Luxeuil.

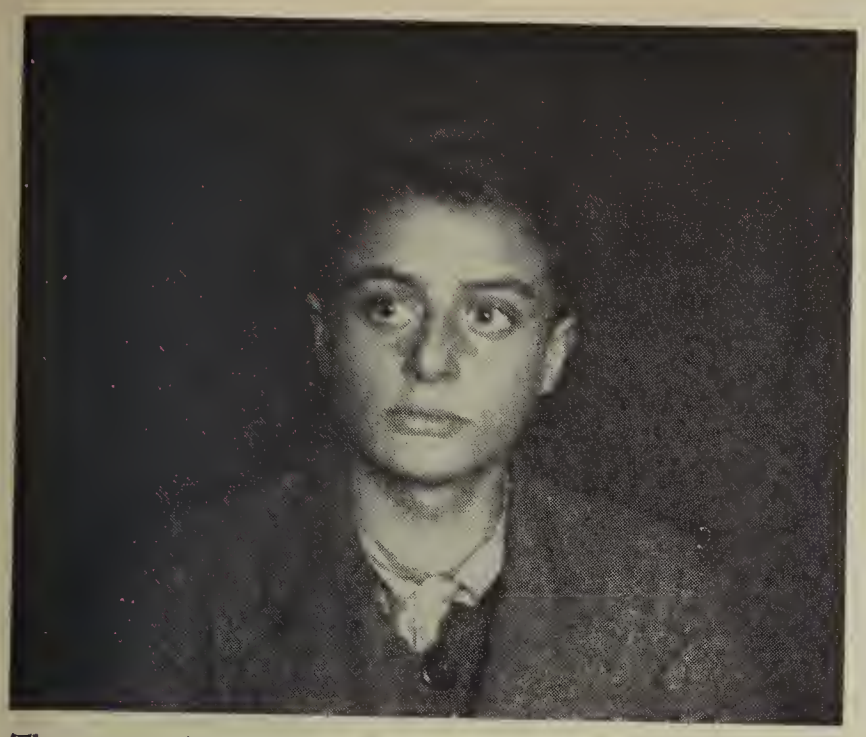
"Cherchez la femme!" gloated Morton. "And for that work—'the Duck!' "

So CIC dubbed their clever SSM collaborator Lieutenant Raoul Canard, who listened fascinated to Martin's story.

"Lingerie?" he exclaimed. "Of a perfume? *Bon! A Luxeuil!"*

Julie had returned there, they found, but the *Maquis* had beaten and jailed her. She was *petite,* indeed, but her small body showed bruises and cuts

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These two Alsatians in the service of the Nazis came to untimely ends at the hands of CIC officers. The girlish-looking sixteen-year-old boy at the left had the duty of reporting to German intelligence on the operations and methods of U. S. counterintelligence traffic check points. Though not lacking in gallantry, CIC officers were extremely realistic about the designs of German-inspired maids on men in olive drab. The sweet-faced babe on the right was arrested for using her womanly wiles to get information from innocent U. S. officers in search of momentary diversion from the strain of combat.

through torn clothing; though scarcely *chic*, for the *Maquisards* had shorn her dark hair. Still, even though grotesquely bald, pale and haggard, she remained a woman, attractive and faithful. She was Tallemann's, body and soul; she would tell nothing to endanger him.

"If the *Maquisards* catch him," Canard urged, "they'll kill him on the spot. But we will give him a fair trial. Come! Help us to find and save him!"

"He sent word he was escaping to Spain," Julie hesitated. "He would bid me farewell—in forty-eight hours—at the *Taverne des Vignerons*, thirty miles away."

THE spy hunters hurried there. They found no Tallemann, but a tall, weapon-laden youth wearing a tricolored armband: Lieutenant François of the *Maquis*. He told them excitedly that the Commandant of his outfit, one Varennes, had been locked in the *"violon"* at Remiremont by his men for ordering them into a suicidal attack on a stronger German force. The innkeeper interjected:

"This same Varennes shot a Gestapo officer and escaped, but Tallemann betrayed to the Nazis four of Varennes' friends and his wife. They shot all four and Varennes' wife died in concentration camp of pneumonia. Varennes vowed to skin Tallemann alive."

François started to speak, then obviously restrained the impulse. With a wink to Morton, Canard proposed to the *Maquisard* that they have some wine. Morton quietly left to question Varennes.

He found an unshaven, dark man who, appearing strangely suspicious of this American ally, protested he never had known that *maquereau* Tallemann. He's lying, thought Martin. Furious, he returned to the inn.

"Enfin, this one," Canard nodded toward François, who sprawled snoring across a table, "and wine—have told me the truth. It takes us all back to Remiremont."

When they arrived there, Varennes again excitedly denied knowing Tallemann, until suddenly François confronted him.

"You killed Tallemann!" the *Maquisard* accused. "When you sought him to get vengeance, I followed you. You came up with him on the edge of a wood near Remiremont. When he saw you, he tried to run, careening on his left leg. You ran after him. . . ."

The memory seemed to snap Varennes' weakening self-control.

"I overtook him!" he screamed. "I taunted him! *'Fumeur!' 'Vendu!'* I emptied my pistol into his black heart! He folded like a jumping-jack whose string has broken. With my helmet I dug in the mud, and buried him."

"You should have brought Tallemann in alive," said Morton sternly, "to reveal to us his agents who are now menacing the safety of our armies. But . . ." eagerly . . . "those agents' names and whereabouts are in his little brown notebook. Did you get it? No? Take us to his grave—now!"

They drove at François' direction to a dark wood of fir trees. Varennes pointed to a heap of earth and leaves.

THEY began to scoop at the pile. Their hands came away brown with mud, also with blood, coagulated upon the gaunt figure in sedate black that they uncovered. Wiped clean, Tallemann's face even in the wan light of early dawn bore an expression strangely peaceful. The only hint of violent death was the tightly clenched right hand. But opened, it revealed nothing. So, from the master spy's stiff body the spy-hunters stripped his pedagogue's suit, but they found neither notebook, papers, nor money. They tore off the underwear and beheld the reason for Tallemann's limp. His lower right leg was an artificial one, strapped to his knee. Martin cried:

"Take off the leg!"

Canard unfastened it. From the knee-socket dropped a leather tobacco pouch. Martin snatched it, drew forth rolls of French francs, German marks, British five-pound notes. Then he shook the false leg. Out fell a small object, square, brown—a notebook! Quickly he flipped the pages.

"Writing—but in code," he muttered anxiously. Then he cried: "But it's an *Abwehr* code that we've broken—and can read! It proves Tallemann was no mere Gestapo stool-pigeon. He was a big shot in German military Intelligence —the *Abwehr!* But look! The methodical Heinie schoolteacher—he wrote down the names and addresses of his agents!"

The dramatic unearthing of the little brown book proved to be a great find for American and French Counterintelligence. Its pages were dealt out like playing cards to Allied agents and yielded veritable canastas of enemy agents hiding in Alsace-Lorraine. Throughout the area raiding parties sneaked up on the hideaways it listed, and found many of them still occupied. Some occupants were the usual small fry: waiters, chambermaids, prostitutes. But there were lawyers, politicians, a few corrupt French officials, a large manufacturer whose "salesmen" ranged Alsace gathering information on French *Maquisards,* and now on incoming Americans. These prisoners, and others corraled through information furnished by loyal French, were interrogated and their stories checked against one another.

Immediately it became clear that, to confuse us and more safely to contact one another, many stay-behinds were now moving about our rear areas, especially of the Seventh Army. To keep them away from the new headquarters where the staff were planning the Rhine crossing, Lieutenant Colonel Kent Cornell purged the vicinity of possible disloyal civilians, arranging with the loyal to give warning of strangers or suspicious happenings. He forbade entrance to all persons without passes. He established at 225 road crossings, bridges and other likely places, checkpoints where civilians must show passes. Their type was changed irregularly to befool the shapely monocled Baroness Von Wochum who, prisoners said, directed experts who supplied *Abwehr* agents with counterfeit passes. Civilians with no passes or the wrong kind were searched and held on suspicion of being spies or saboteurs.

The second word especially sent a chill down CIC's collective spine. Saboteurs! An immediate, creeping menace to the bridges and culverts we were repairing to carry the trucks and trains full of supplies and arms we needed to force a Rhine crossing, to the new supply and ammunition dumps that also were tinder for torch and bomb. Strong guards were set and all CIC checkpoints were alerted:

"Look out for seeming refugees with lumps of coal in their pockets."

THEN began a general laying on of hands upon all who sought to pass, and especially those who looked lumpy. It became none too gentle when the lumps on certain Alsatians were found to conceal black objects of the shape and size of coal. The laboratory pronounced the shiny exterior to be a tarlike covering for a hollow interior that contained a clever chemical time-charge that would explode some time after the fake "coal" had been placed in piles of the genuine article either in dumps or in locomotive tenders. The explosives might have tied up our railroads in Alsace-Lorraine as effectively as a strike ties up those in America. How many of these infernal machines and men trained to use them were already behind our lines and about to be placed where they would do the most harm? How could that be prevented? As CIC pondered, a checkpoint reported:

"We got a human torpedo! Sixteen small coal bombs in his pockets! Plays dumb, but is bright enough to know he's on a spot. Maybe he'll talk."

CIC rushed up a clever French Alsatian interrogator, and the prisoner talked. He had been head of an Alsatian pro-Nazi cell, and could identify and describe several *Abwehr* officials, including the German sabotage troop leader who had trained him. The description was so good that scarcely had it permeated the 225 checkpoints than the German himself was captured and on the grill. Sizzling questions and accusations made it so hot for him that presently he said:

"Let me have a pencil—and a map."

He proceeded to mark the location of every bridge, dump or building that the *Abwehr* had scheduled for wrecking by explosive or fire, including some that had been charged before the German retreat and now needed only to be detonated. But not knowing that CIC now knew these plans, the *Abwehr* continued to send agents to try to carry them out. Shabbily clad as any in the battered, footsore procession of refugees, they came to our checkpoints with varied stories containing truth sufficient to make the untruth very hard to detect. But CIC took no chances, questioning, searching. In a hip-pocket of an apparently innocent youth, blond as many Alsatians, they found a flashlight. Harmless enough—but when someone pressed the button, out shot a beam of green light.

"It's a signal light," said Special Agent Woolworth W. Frank and he took the flashlight and the now jittery prisoner down to the west bank of the Rhine. He flashed the green light toward the east bank, time after time. Then through night and mist appeared a phantom boat, in which a dark, stooped figure plied muffled oars. Drawing his revolver, Frank crept forward. Suddenly the prisoner shouted toward the boat:

"Amerikaner hier!"

Then he bolted.

In one motion, Frank whirled and fired once. The prisoner fell. Completing his whirl, Frank emptied his revolver at the boat. There was a little splashing as the oars sank into the water, but then, to the CIC agent's dismay, the boat was swallowed again in fog and darkness.

At dawn they found it stranded on our bank of the river, beside a clump of trees. Searching through these, they bumped into a body dangling from a limb. It bore a bullet wound apparently not fatal, but serious enough to cripple the man. Yet he had managed to hang himself with his own belt. He must, they thought, have been tremendously determined to die. Why?

"This is the Alsatian's pal," CIC deduced. "Frank's bullet made him lose the oars so he couldn't steer the boat and it drifted to our bank of the river. Rather than be captured, he hanged himself. And here's why: The *Abwehr* teaches agents it sends on important missions that they must kill themselves rather than be captured, tortured, and made to tell all they know. Some don't do it—but some do; really desperate Nazis on really vital missions. Now what was this man's mission?"

Frank hurried to the hospital where his wounded prisoner had been taken. Although the blond youth was shocked by news of his partner's suicide, it took long questioning to make him even hint at the secret for which the dead man had given his life rather than reveal.

"All I can tell you," he said faintly, "is search—search—down a well."

French hurried back to the Rhine, and with all the help he could muster from CIC, MPs and GIs, combed the region where the agent had landed for wells. He found one—old and deep and dark. At the bottom were heavy packing cases. Hauled to the surface and broken open, they disgorged what seemed to be enough lumps of explosive coal to have blasted the Alsatian mountains into valleys. In fact, this proved to be the *Abwehr's* entire reserve supply. It had been hidden behind our lines, for saboteurs who had used up those lumps they had brought through in their pockets, and also for others who had come through with none of the telltale objects, or had stayed behind with supplies that would need replenishing. Seventh Army CIC received official commendation for "forestalling a serious wave of sabotage."

This is the first of two articles on the Seventh Army's Counterintelligence Corps detachments in World War II.

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WHAT'S BEING DONE ABOUT IT?

(*Continued from Page 13*)

distort and perhaps destroy any positive steps that may be advanced.

General Bradley deserves credit for inspiring the JCS paper that is reproduced here and the members of the JCS deserve credit for adopting it as an official expression of their concern for the future of the nation's fighting forces.

Mr. Eisenhower deserves credit for putting the tremendous power and prestige of the White House behind the movement for better service conditions. This was not a simple thing for him to do. As the Chief Executive of the United States he must be circumspect at all times so that neither political opponents of his party nor enemies of the "military" can charge him with undue favoritism to his own profession. Some will attack him on those grounds in any event but it is good judgment on his part not to give these segments of society too many opportunities to cry out in alarm. We think Mr. Eisenhower must be very conscious that a "General in the White House" can do more harm than good if he tries to do too much for the military profession.

THE strongest possible support for the services must come from civilians who are familiar and concerned about the growing unattractiveness of military careers. It would be a distinct service to the nation if some of the distinguished leaders from the professions and business and industrial worlds would gird for the battle by forming a non-political committee that would fight for the servicemen, who must largely remain mute and aloof from this struggle that so vitally affects them and their families. There are many able men in civilian life who know these problems and who have the organizing ability to put across an effective program that would make the facts clear to all the people: Mr. John J. McCloy, for example, a former Assistant Secretary of War and High Commissioner to Germany; and Brig. Gen. David Sarnoff of RCA who has only recently headed a committee that studied these problems; former President Truman would certainly lend his support as would distinguished members of the Republican Party. And the country is teeming with lawyers, doctors, teachers and business men who have served with the Army, Navy and Air Force and who know from experience that the Regulars are indeed the vital and necessary leavening that gives direction and meaning to the military power of the United States in time of war.

The Joint Chiefs of Staff can labor to enhance the services and every soldier, sailor and airman can do his bit. But the strongest weapon—the only effective weapon—is an aroused and informed citizenry. We hope such a group appears spontaneously, free of any hint of being Pentagon inspired," as were the local committees for UMT that were formed a few years ago.

LETTER FROM PARIS

NATO Turns to Atomic Tactics

WHEN General Matthew B. Ridgway, in a terse press release from SHAPE, announced that he was starting a series of atomic indoctrination courses for Allied commanders and staff officers, the defense of Europe took a new, but not unanticipated, turn. For the first time, the defense plans of a geographical region will include the benefits of atomic developments, as they modify classical and conventional strategy and tactics. That it would do so was heralded many months ago in guarded discussions by U. S. officials.

The big questions, still unanswered, are: Does the atomic factor mean more or fewer ground divisions and combat support units? Undoubtedly it will mean fewer tactical attack airplanes. But will it mean more or less air power, including interceptor types?

Ridgway's school does not go so far as to answer such questions. The courses will be held in the U. S. zone of Germany, conducted by U. S. authorities, to *acquaint* allied officers with the use of atomic weapons in tactical situations. Undoubtedly the instruction will include defensive tactics, including all the information normally given civil defense authorities. How quickly can troops move into an atomically-bombed area? How long can they stay? What measures can be taken to protect troops from atomic attack? What are the best methods of attack and exploitation following an atomic attack? Will atomic bombs call for greater dispersal of defending troops? What will be the effect of atomic radiation and blast on armored units? Infantry units? These, and many other questions, will have to be studied by the commanders and key staff officers if they are to effect any changes in the requirements of approximately 100 divisions and 10,000 aircraft needed for the defense of Western Europe.

Two types of courses are to be planned: a 4-day course for general and flag officers, and a 10-day course for key staff officers. Neither will include any information which is classified as "Restricted Data" in the Atomic Energy Act.

General Bradley cautioned a NATO press conference that "optimistic estimates concerning the availability and effect of atomic weapons could mislead some nations into thinking that not all of the NATO forces planned for 1952-53-54 need be provided and trained. Such thinking would not be justified. No tested knowledge of atomic weapons to date indicates any reason to let up in our efforts to build up our collective security forces to at least those we are planning for the next few years."

It is known that General Ridgway's headquarters was asked to prepare a study on the effect that new weapons, including atomic, and new developments might have on the strategic defense of Western Europe. The report is due in the Standing Group for consideration sometime this summer or early fall. This will be the first defense-plan study to include the effect of atomic weapons on modern warfare—especially in their tactical application.

S. NIPERS COPE

TO THE EDITORS . . .

(*Continued from Page 10*)

best battalion on the post. Then he goes on furlough.

When he returns, he is put on over seas orders, they break the platoon up, send some one way, some another, and keep some behind. So much for Team No. 1, to say nothing of morale.

When he gets overseas, he is assigned to a unit with a few other men. He will be there three or four weeks before he becomes part of that team. But platoon-size units are rotating five to six men a month and there goes Team No. 2. When 2,000 men are rotating from a division each month, where is your team or morale?

I have been in the Army since 1940 and I know (and most of your readers will bear me out) that the officers and noncoms who have worked with the men through basic would put more into the training of the men if they knew that the men would be going overseas together as a team, and that it would be their platoon and company.

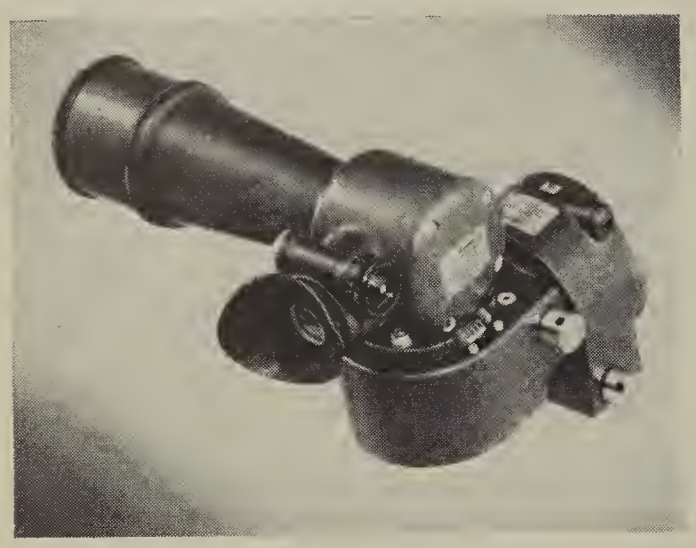
I think that this could be worked out to the good of the Army. Rotate company- or battalion-size units thirty days before the unit shipping date, DS officers and key NCO's to the unit that is being rotated so that when the unit arrives they will have firsthand information of SOP, terrain and other essentials. Rotate personnel without equipment; when they get there they can take over the equipment of the unit they are replacing.

SFC FREDERICK R. CHILDS
APO 468, c/o PM
San Francisco, Cal.

Irons in the Fire



Radar Boresight Telescope

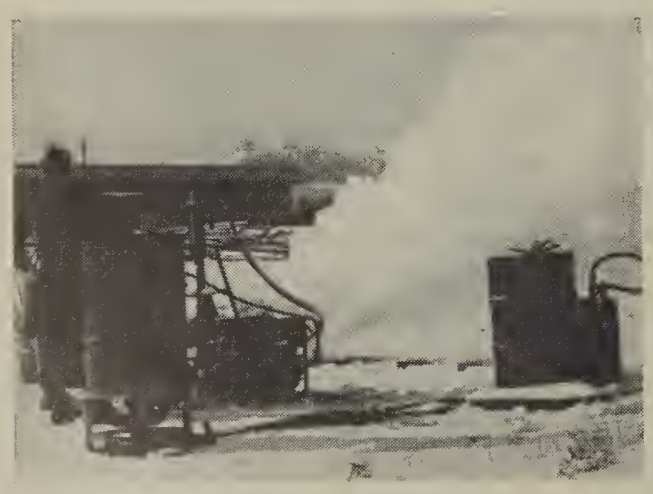


Aremac Associates have announced the development of a new unit designed to provide a rapid, accurate and convenient means of calibrating and checking radars. The elbow-designed optical instrument incorporates a ten or fifteen power prism-lens system.

Missile Generator

AiResearch Co. is now producing an exceptionally compact AC generator for airborne use. Weighing only four and three quarters pounds, it is less than half the size of the standard automobile generator. Because of its storage qualities, it is well suited for use on missiles, thus replacing heavier short-lived batteries. Designed for utmost simplicity, this AC generator turns out 800 watts, 115/200 volts, three phase, 400 cycles. It is extremely rugged and has passed tests of a 50 G shock and 40 G acceleration and has operated successfully at 50,000 feet.

Portable Smoke Generator



A new smoke machine—the M-3 Pulse Jet Smoke Generator—is being produced by the Evans Products Company for the Chemical Corps. Weighing 125 pounds, the generator is about the size of a small trunk and can easily be carried by two men. The generator uses gasoline and oil to spread a penetrating blanket of white mist from three nozzles. The unit is self-contained and battery-powered.

Battery Vest

Walkie-talkie radio batteries have a bad habit of "conking-out" in sub-zero temperatures. To combat this, the Signal Corps has experimented with a flexible battery vest containing 117 pockets for as many small (pencil-stub size) dry cell batteries interconnected by small flexible wires, forming the equivalent of the standard batteries for the radio. The vest, manufactured by B. F. Goodrich, weighs little more than three pounds and uses the body heat of the soldier to maintain a much higher degree of energy than standard batteries under similar conditions. The battery vest furnishes power to both the receiver and transmitter and is interchangeable with the standard battery.

Turbo-prop Transport

The new Lockheed C-130 turbo-prop is the latest thing in military air-transports. Built to fly at low speeds and low altitude for parachute drops or high altitude and high speeds for long-range flights, the C-130 has many adaptations for Army use. It can fly up to 20 tons of cargo. A strong, foot-thick floor, a pressurized cabin with heated floor and walls are just some of the newer innovations in this military transport. The four engines are Allison turbo-props-jet engines harnessed to turn propellers. The Army had a big hand in setting up the requirements for the C-130 and consequently many desirable features developed from previous transport use have been incorporated into the plane.

Tank Retriever

A new 50-ton streamlined giant, called the T-74 Tank Recovery Vehicle, is now going into quantity production at the Bowen-McLaughlin-York Co. Specifically engineered to support the latest model medium tanks, the T-74 is capable of towing damaged tanks across country as well as hoisting and winching tanks out of mud or deep ditches, and when the need arises it flips upright an overturned tank. Hydraulically operated winches provide sufficient hoisting power to pick up and carry medium tanks. A front spade, designed to stabilize the retriever for extremely heavy lifting or towing, can also be used to improve on-the-site terrain if adverse ground conditions are encountered. What's more, the retriever crew can do the job from inside the tank without exposure to enemy fire.



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FRONT AND CENTER

THE President's plan to reorganize the Department of Defense is going to have hard sledding in Congress although his Executive Order is a positive action that can be overruled only by action of Congress. If Congress doesn't act against the proposal by 30 June the President's reorganization will stand. We plan to present analysis and discussion of the reorganization in this magazine next month.

EXPERIMENTAL tests of the organization of the infantry regiment are under way at Fort Bragg with a regiment of the 82d Airborne Division acting as the guinea pigs. The tests are designed to see if the regiment can increase its fire power and defensive strength while reducing its overhead strength. Among the tests are: 11-man squad; elimination of the battalion heavy-weapons company, merging it with the headquarters company and transferring its heavy machine guns to rifle companies; adding four—for a total of eight—105mm recoilless rifles and eliminating the two 75mm rifles; adding three 81mm mortars—for a total of six—to each battalion.

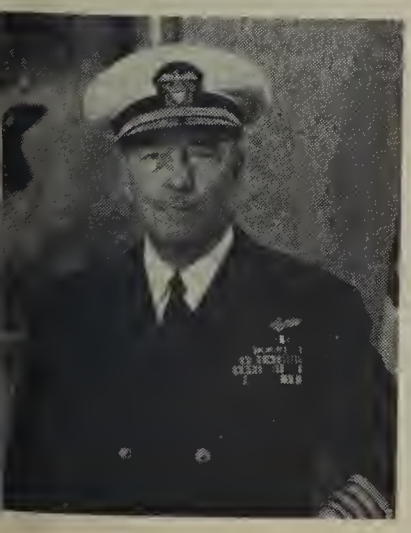
THE use of the hip and crouch positions in firing the M1 rifle has been discontinued in training. Instead the rifleman will fire aimed shots from the shoulder. At short ranges—30-35 yards—he will fire while moving forward. For longer ranges he will stop to fire his aimed round. Army Field Forces directed the change in order to eliminate faulty techniques used by recruits during assault firing problems. The change is not expected to reduce the volume of fire but will certainly increase the accuracy of fire on known or suspected enemy locations during an assault.

THE infantry rifle squad (including airborne) has improved its fire power potential a great deal with the addition of another BAR. Each squad will now have two BARs.

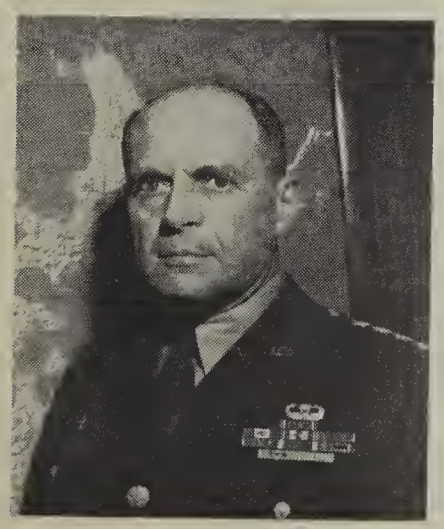
THE planned reduction of the number of training divisions to six from the present ten could conceivably result in higher-quality training. With fewer training cadres the Army can be more selective in choosing officers and noncoms for this all-important duty of training new men. As long as the Army's strength is to be stabilized at or near its present level, replacements can be trained handily in six camps. There is a good argument that more savings could be made in the same field by eliminating or consolidating some of the technical services' training centers. And while the Army has succeded in ridding itself of a number of the battalion and regimental posts that are a relic of the horse-cavalry days, a number of such still exist and could possibly be eliminated (if political pressure, always prevalent in these cases, could be overcome). Among the smaller posts closed or soon to be closed are Fort Hancock, N. J.; Fort Huachuca, Ariz.; Forts Worden and Flagler, Wash.; and Fort Custer, Mich. Indiantown Gap, where the 5th Training Division is located, is one of the larger reservations to be closed. Fort Drum, N. Y., and Camp Cooke, Calif., have already been inactivated. Other training division posts that may be closed are Camp Breckinridge, Ky. (101st Airborne), Camp Roberts, Calif. (7th Armored), and Camp Chaffee, Ark. (5th Armored). The Navy has closed down a part of its Naval Training Center at San Diego, Calif. The Air Force has not closed down any installations but several bases it was planning to activate may be washed out by the cut in Air Force funds.

THE Court of Military Appeals has ruled that you can be guilty of cowardice "in the presence of the enemy" even though you are miles from the front lines. It made the ruling in the case of a corporal who, while returning to his front-line combat company, refused to go beyond a friendly artillery position then engaged in firing at the enemy. The court ruled that "in the presence of the enemy" was not a matter of definite distance but of "tactical relations." It noted that, for example, a member of an antiaircraft gun crew in position where an enemy air attack might be anticipated could be guilty of cowardice "in the presence of the enemy" even though the position was many miles from the enemy lines.

THE NEW TEAM OF MILITARY CHIEFS



ADM. ARTHUR W. RADFORD
Chairman, Joint Chiefs of Staff
o succeed Gen. Bradley in August



GEN. MATTHEW B. RIDGWAY
Chief of Staff, Army
To succeed Gen. Collins in August



ADM. ROBERT B. CARNEY
Chief of Naval Operations
To succeed Adm. Fechteler



GEN. NATHAN F. TWINING
Chief of Staff, Air Force
Successor to Gen. Vandenberg

The conduct of war is a matter of common sense and strength of character

The ABC of War

Major General H. W. Blakeley

IN any field of activity technical know-how is all-important at the lower levels of supervision, but becomes less and less important in higher executive positions. This is just as true in the running of a war as it is in the management of a great corporation. Roosevelt, Churchill, Stalin, and Chiang, the top Allied strategists of World War II, could not have pooled their very considerable talents and, without training, officered a battery of artillery, a submarine, or a bomber.

However we may define strategy, its principal ingredient is common sense. Most authorities define it as the large-scale planning and directing of military operations, but others hold that strategy exists only in the mind of the commander and all else is tactics. If common sense and clear thinking are the prime elements in strategy, the junior officer ought not to feel that it is something beyond his ken.

The much quoted (and little read) Clausewitz was very definite about this matter over a century ago. He declared that acquaintance with military affairs was not the principal qualification for a master strategist. "A remarkable, superior mind and strength of character" were more important he believed. Abraham Lincoln was the perfect example of this. In the crucible of war, he developed into a better strategist than any of his generals, and incidentally established the forerunner of our present system of command. It was not because he was a civilian, though, that he achieved superior leadership. It was because he had "a remarkable, superior mind" and unusual strength of character. Hitler, in spite of the early successes of his bold and unorthodox strategy, lacked these qualities.

"The Principles of War" is a term that scares off many people—soldiers, sailors, and airmen included—and with some reason. For one thing, not only have the military schools of the great powers never agreed on the true principles that should guide all operations of war, but in our own armed forces we at one time even had *a different number* of principles being taught in the Army and in the Navy. It made no difference that the principles are usually described as "immutable." The War Department, some thirty years ago, did get a little red-faced when it published "Changes No. 1" to its "immutable principles."

There is no intention to be academic here about the fine points of the ideas which have guided successful leaders since warfare got beyond tribal disputes with stones and clubs. As weapons and communications and means of transportation change, the *expression* of these principles will obviously vary from concepts produced before we reached our present state of so-called civilization complete with atomic bombs.

Almost all authorities agree that the vital principle, the one upon which all the others depend, is the ***principle of the objective.*** This simply requires selection, at the outset of a campaign, of a specific, realistic, tangible goal, attainment of which will compel the enemy to conform to our will.

General Eisenhower's mission in 1944 was to "enter the continent of Europe, and, in conjunction with the other United Nations, undertake operations aimed at the heart of Germany and the destruction of her armed forces." The objective of the first phase of his operations was to secure a lodgment area which was to include airfield sites, the port of Cherbourg and the ports of Brittany. Here was a specific, tangible goal which compelled the enemy to go on the defensive and eventually to conform to our will.

IN Korea, we have a very different picture. Initially, General MacArthur's mission was, according to testimony during the Congressional hearings, "to clear Korea of the enemy and to make of Korea a free, united, and self-controlled nation." The objective, then, was to overcome the North Korean forces and liberate the entire country. Speaking of the time when the United Nations troops had occupied nearly all of Korea, MacArthur said: "Our victory was complete and our objectives within reach when Red China intervened with numerically superior ground forces. This created a new war and an entirely new situation. . . ." Initially, we had a specific, tangible goal, but it became unrealistic when the enemy that we sought to compel to conform to our will became not the North Koreans but the Chinese Reds, and perhaps Russia. Our world-wide objectives, defensive in character unless another world war is forced on us, affected the objectives in Korea. From the Joint Chiefs' viewpoint, the world situation required that the Far

MAJOR GENERAL H. W. BLAKELEY, Retired, a graduate of the War College and a former instructor at both the Field Artillery School and the Command & General Staff College, served with the 5th Armored Division and the 4th Infantry Division during World War II. Since his retirement, he has written extensively on military affairs both for professional journals and civilian publications.

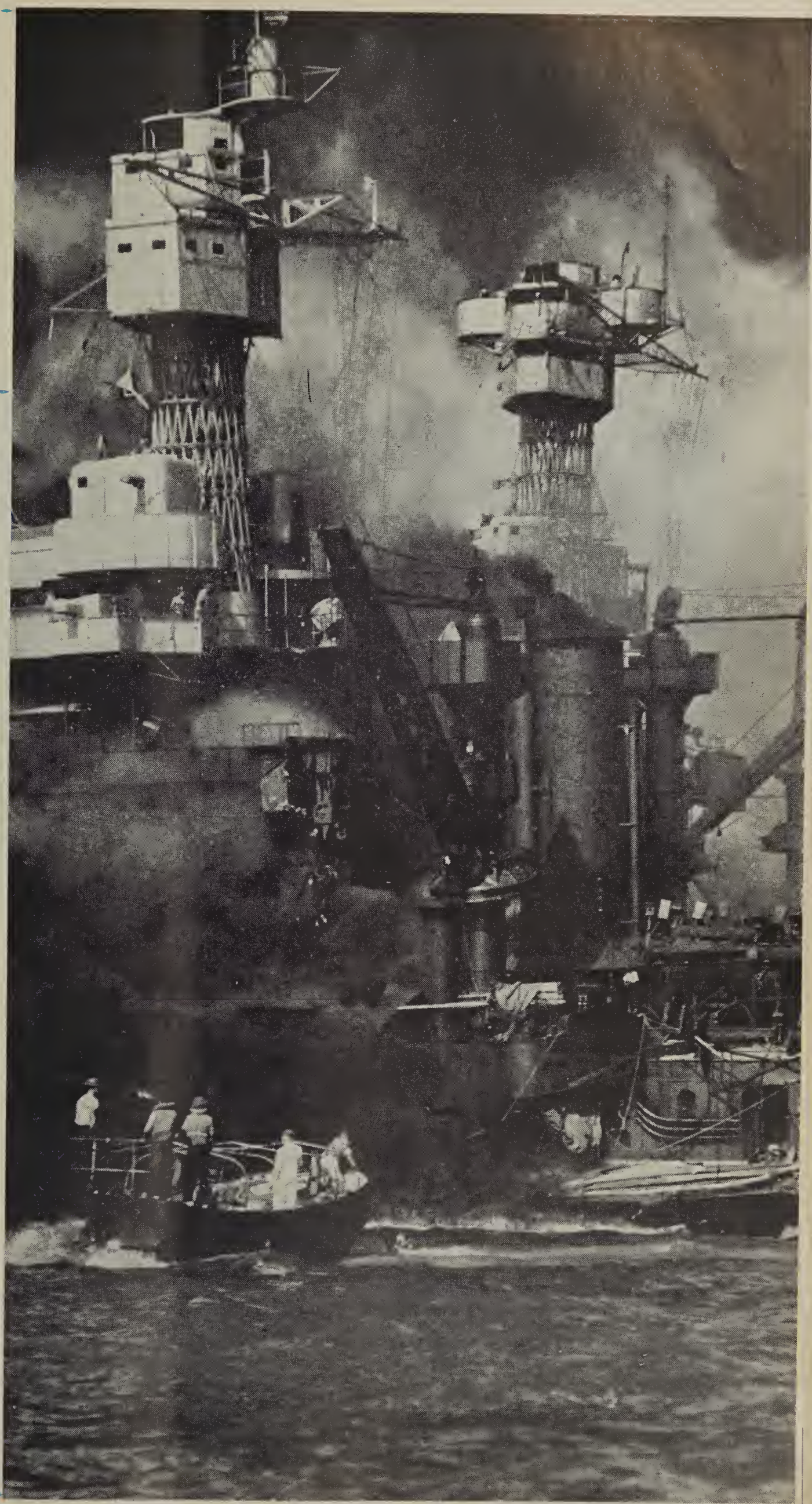
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The Pearl Harbor disaster exemplifies at least three principles of war. For the Japanese, Pearl Harbor proved the validity of the principle of surprise. For the United States it was a lesson in the disaster that can befall when the principles of unity of command and security get little more than perfunctory observance.

East commander's primary mission, after the Chinese intervention, should become (1) not to let the forces under his command in Korea be cut off and destroyed, and (2) to protect Japan from attack, including of course direct attack from the Soviet Union.

Security of war plans and perhaps of cryptography, plus changing conditions, make it uncertain as this is written exactly what General Mark Clark's current objective is, but it must be more specific than the announced mission "to defeat aggression and to restore peace." Red China is the principal enemy, in the militarily active sense, but it is unlikely that General Clark's objective is one which if attained "will compel the enemy to conform to our will." It follows that we are not conforming to the principle of the objective in the Far East, but that, in spite of casualties and elapsed time, we are in fact engaging in a "police action." Politically, in the broadest sense of the word, the present policy may be correct. If we hadn't stopped aggression when and where it started, we probably could not have stopped it at all. But militarily the policy results in something close to frustration. And when we lack a decisive objective—the "what" factor in war—the application of the other principles dealing with "how" to accomplish a basic mission becomes increasingly difficult for the military men who must apply them.

It should be emphasized that the principles of war must be applied at each command level. The objectives of the Combined Chiefs of Staff in World War II were different from those of any one theater commander. In the Normandy landings, Montgomery's objectives as commander of the ground forces were



different from those of any of his subordinate commanders, and the objective of a battalion in an attack will differ from that of the regiment of which it is a part. But at all levels, the principles of war should guide the commander as he goes through the routine of estimate of the situation, decision, plan, orders, and supervision of execution of his orders. Common sense and good judgment are more important at the Chief of Staff level than technical know-how. Down at battalion it is often the other way around.

Looking back at the top level of strategic decision during World War II, was the inclusion of "unconditional surrender" in the Allied objectives wise? The militarily untrained civilian who doesn't know an LCI from an LCT can reach his own opinion on such a question. Or consider Korea. Clausewitz gave some good and applicable advice: "Be generally strong, then be strong at the decisive point." The United Nations are becoming "generally strong." Is Korea the decisive point? Yes, if victory there results in no further aggression. No, if the Communist decision is to hit in western Europe. Here is a vital military decision that depends only partly on technical military knowledge.

LET us look at the application of the "how" principles in the light of the Korean campaign. Right up at the top of our Army's list of these is the ***principle of simplicity.*** This looks to the use of concise, understandable plans and orders to facilitate correct execution, and retain at the same time the flexibility essential to meet changing conditions. In Korea, our better educated personnel and superior communications permit rapid shifts of fires or troops to meet new situations, but if the plans or orders should be permitted to get too complicated, disaster might easily result. Winston Churchill said of the Japanese during the last war that "the rigidity of the Japanese planning and the tendency to abandon the object when their plans did not go according to schedule is thought to have been largely due to the cumbersome and imprecise nature of their language, which rendered it extremely difficult to improvise by means of signalled communication." The same limitations apply to the Chinese. They *must* practice simplicity. If they violate the principle, they will create chaotic situations for themselves. In our own forces, the individual replacement system requires more emphasis on simplicity than is necessary in the case of well-trained, professional troops moved in and out of the zone of operations by units.

Unity of command is a principle which has had tough going for reasons all the way from personal vanity to honest disbelief that a commander from another country, another service, or even of another arm within a service, had the necessary familiarity with techniques and personnel to function effectively as an all-over commander. From these objections came a tendency to favor cooperation over unity of command. Modern military thinking, however, tends toward the idea of a single commander to ensure decisive application of the maximum power of all available forces toward the objective.

In Korea, we did not have it initially, because the Republic of Korea troops were not under the Allied Supreme Commander when the campaign began. Even the American Military Mission of some 500 officers and men in Korea was functioning under the State Department. As MacArthur put it: "My responsibilities were merely to feed them and clothe them in a domiciliary way. I had nothing whatever to do with the policies, the administration or the command responsibilities in Korea until the war broke out." The present setup with a United Nations Supreme Commander over the air, sea and land forces of all the allied nations is a perfect example of unity of command. His missions come from our Joint Chiefs of Staff through the Chief of Staff of the Army.

Lincoln, searching for competent commanders during the darkest days of the Civil War, saw clearly the value of unity of command. "How much depends," he exclaimed, "in military matters on one master mind."

The principle of the offensive calls for grasping the initiative at every practicable opportunity. It sounds simple, but was it clear before the event that MacArthur's assumption of the offensive when he made the wide amphibious envelopment that struck at Inchon was a "practicable opportunity"? Obviously not. Basically, the principle of the offensive is important because objectives cannot be obtained without offensive action. Defense can never achieve decisive results. Defensive combat has only two justifiable purposes: either to gain time pending the development of more favorable conditions for undertaking the offensive, or to economize in men, weapons, and ammunition in one locality while concentrating superior forces for a decision somewhere else.

Clausewitz had a good comment on this subject: "A swift and vigorous assumption of the offensive, the flashing sword of vengeance, is the most brilliant point in the defense."

STATIC warfare not only fails to get results, but it is hard on fighting spirit—the French Army at the end of the "phony war" period of World War II is a good example. The ***principle of maneuver*** calls for organizing and positioning our forces so as to be able to achieve superior strength at the decisive point. The Inchon landings on the west coast of Korea, accompanied by a frontal attack up the Korean peninsula and an east coast landing at Changsa-dong, were modern versions of the classic double envelopment designed to result in a battle of annihilation. Much bunk has been written about this plan as a mark of General MacArthur's military genius. It was a standard solution of the problem as it existed. It would have probably been turned out by at least half the class at any of our upper military schools. Writing in the military weekly *Armed Force* before the event, I said: "A landing on the west coast not far south of the 38th parallel would make it easy to seize the assumed objective (the 38th parallel) and, at the same time, contribute to the destruction of the enemy forces by cutting off the northward retreat of his main body. . . . The troops already ashore in the Pusan beachhead, preferably reinforced, would put on a holding attack, and a small force, perhaps a regimental combat team, landed somewhere up the east coast would be useful to create a diversion."

The MacArthur plan, then, was not "brilliant." What was extraordinary was MacArthur's good judgment, courage and decisiveness in the face of objections from many of his advisers and from the Joint Chiefs of Staff. The best that Admiral Doyle, who was to command the Amphibious Group, could say was that "Inchon is not impossible." Accounts of the final command conference before the invasion indicate that MacArthur took the full responsibility, and indeed convinced most of his initially skeptical hearers of the probability of success.

Two principles of war very closely re-

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lated are the ***principle of mass*** and the ***principle of economy of force,*** sometimes called a little more precisely, economy of forces. Victory requires the concentration of superior forces, of "mass," on the ground, in the air, and on and under the sea at the decisive places and times. In order to achieve this superiority, there must be economy of force in other places. Here is a real test, not only of good judgment but of leadership and character. The commanders of the theaters designated as secondary ones naturally exert every effort to get more troops, planes, ships and supplies. The commanders in the Pacific and in Italy when the invasion of France was being given priority in World War II felt that they were not getting adequate means to fulfill their missions. The pressure on the Combined Chiefs of Staff—the control group that directed strategy for the United States and Great Britain—was tremendous. On their advice, Mr. Roosevelt and Mr. Churchill had decided right after Pearl Harbor that, as General Marshall expressed it in his Biennial Report of 1945, "our resources would be concentrated first to defeat Germany, the greater and closer enemy, and then Japan."

Incidentally, the creation of the Combined Chiefs of Staff to control for both nations the strategic direction, the allocation of manpower and munitions, the coordinations of communications, the control of military intelligence, and the administration of captured areas—this creation was an example of the application of the principle of unity of command even though the command was in the hands of a group rather than in an individual's. Some major problems, of course, went up to the President and Prime Minister for decision, but they firmly supported the basic strategic decision.

Leadership and firmness are just as much required at the tactical level. A regimental commander in Korea with two battalions in line and one in reserve who decides, in planning an attack, that he will make the main effort with his left battalion, giving it priority for artillery and tank support and for air strikes, while his right battalion makes a "holding" attack—that is, one that will hold the enemy in position and prevent his identifying the main attack and putting in his reserves against it—will invariably have a visit from the secondary attack commander who will have excellent arguments for switching "just one tank platoon" or a slightly larger share of the artillery preparation from the main attack. If the regimental commander doesn't stick to the principles of mass and economy of force, he may have his whole attack thrown back because he was not "strong at the decisive point."

Whether a world war or a regimental attack is the problem, success in the main operation will more than compensate for failures elsewhere.

Surprise as a principle of war is important, intriguing, and considerably misunderstood. Surprise has been a powerful element in successful attacks in the whole history of warfare. Lee achieved it at Chancellorsville when, after Hooker had made a wide envelopment of his left flank, he, in turn, split his small force and sent a part of his command under Jackson in an envelopment of Hooker's envelopment. Hitler achieved it when he struck through the Ardennes in 1940 and in 1944. The Japanese certainly achieved it at Pearl Harbor. So did the Allies in their raid on Dieppe, even though they were repulsed as was Hitler in his second drive through the Ardennes—the Battle of the Bulge.

Perhaps it is not too academic to say that surprise is not merely launching an attack at a time and place not expected by the opponent; it is rather the attainment of the objective of the attack before the defender can move his reserves to prevent success. The Inchon landing was probably foreseen by the Communists before it actually occurred. The plan was not, apparently, a well-kept secret, and the loading and movements of some 260 ships could hardly be kept from the knowledge of the Reds. But it



Churchill, Roosevelt and Stalin at Yalta. On the highest national and international levels, the principle of the objective requires far-reaching decisions by the chief executive of the government or governments. A coalition can be successful only if the partners are honest with one another and if its overall objective can be attained without doing violence to the political and social aspirations and needs of the separate states and their peoples. Yalta failed because Stalin used deceit, subversion and propaganda against his wartime allies.

might be argued with reason that the landing was nevertheless a military surprise in that it was pushed home before the enemy could shift his forces to meet it.

Surprise, whether it is considered as a principle of war or in connection with giving your wife a surprise party, is achieved by secrecy of preparation, deception ("Looks as though we'll be out on a night problem on your birthday"), new methods, and speed of execution. In war, new weapons and the use of terrain that seems to impose great difficulties (the Ardennes has been an example several times with decreased surprise each time) might be added to the list, but the underlying idea is the same.

THE ***principle of security,*** the other side of the surprise element in war, includes the whole organization for securing and evaluating information of the enemy; security forces such as outposts, and air and sea patrols; correct estimates of the enemy's capabilities; and constant readiness for action. Pearl Harbor is an example of failure. A more recent and quite different example of the application of the principle of security was when the Joint Chiefs of Staff changed General MacArthur's mission in the Far East, as previously mentioned, after the Chinese Communist forces intervened and further intervention by Soviet forces seemed not unlikely. At that time, the former Supreme Commander has testified, he was informed that "my primary mission involved the preservation of my forces and the security of Japan." Security considerations here affected the objective.

LET'S go back for a moment to one of the earliest wars ever fought. It cannot be documented by after-action reports, but it probably went about like this. Uglub was the strongest and smartest of the eight warriors of a tribe which had lost nearly all of its women by accident and sickness. The Zumbo tribe in the next valley had many attractive young women, but it also was a strong tribe with over twenty men of fighting age. Uglub and the other warriors of his tribe got into a big argument over what to do about the situation. He convinced all but two that the thing to do was to kill enough of the Zumbo warriors so that the others could be easily cowed, and the women could be seized. The two who disagreed with Uglub came around to his way of thinking when he grabbed them by the backs of their necks and knocked their heads together. Unity of command had been achieved, and an objective selected which was specific, realistic, and tangible and which when attained would compel the enemy, male and female, to conform to the will of the victors.

After a noisy war dance with much beating of drums, the eight warriors, armed with clubs and stones, moved slowly and directly to the main pass between the two valleys. They had lost the advantage of surprise because there had been no secrecy, no deception, and no speed, and when they were in the middle of the pass they were jumped by sixteen of the Zumbo warriors who not only had a two-to-one advantage, but had hidden themselves so that when Uglub's group walked into the ambush the enemy fighters formed a circle around them.

Uglub, who hadn't been doing very well so far, now, under the stress of the emergency, applied several principles of war promptly and correctly. He decided that the only hope for his party was for it to get out of the ring of club-waving warriors which surrounded it, and get out by the way of the trail back to his camp. There were only three of the enemy on this trail, and Uglub with five men attacked them, a two-to-one advantage in Uglub's favor, while two of his men protected his task force from attacks from the rear. The whole group made a quick breakthrough without losses and got free, killing three of the enemy in the process. Uglub had employed correctly the principles of the offensive and the mass. The two men who provided protection for the attacking group exemplified security and economy of force. Uglub had been strong at the decisive point. He was lucky in that the enemy, who lacked a strong leader, didn't pursue. Luck helps in war as it does in football, poker, or love.

A few days later, Uglub and his warriors stole swiftly through the jungle by a roundabout route while the women and children made much noise along the trail. Seven of the Zumbo warriors were up in the pass, and Uglub's group had little trouble in killing the surprised ten who were sleeping in the enemy camp. Then a quick attack up the trail took the guardians of the pass in the rear, and Uglub achieved his objective. He had applied most of the principles of war although he never, to his dying day, heard of them.

SINCE the days of Uglub, life in general and military operations in particular have become much more complex, and the squad leader of today has to decide how to use his automatic weapons, know what mortar, artillery and air support is going to be available and how it is to be used, and be familiar with communications, gas defense, and even the precautions to take if the enemy uses atomic bombs. All this is technical knowledge, some of which will certainly change within the year, but the principles of tactical employment that worked when Uglub used them are just as necessary for success today as they ever were.

Uglub was not limited in his actions. There was no threat of some great and ruthless tribe intervening if he crossed the mountain into the enemy's valley and attacked his main camp. Limited war is not new, however, but it has usually been an economy of force measure, temporarily pursued until victory in the major theater was attained, or forces and supplies accumulated, or perhaps the strain of defense wore down the enemy. In the Korean situation, the main theater from the viewpoint of global strategy is western Europe; and it is not only inactive but the national policy is to keep it inactive short of an enemy offensive; forces and supplies are reasonably adequate; and there is little sign of an enemy collapse from internal causes. Tremendous strides in communications and mobility have made limiting a military operation more difficult. It is much harder to limit the Korean campaign than to keep the Battle of Gettysburg within a few Pennsylvania farms.

General Bradley, Chairman of the Joint Chiefs of Staff, in a recent speech summed up the Korean situation this way: "We usually start our military operations when we have built up our strength and are ready to launch an offensive. But in Korea we were in the scrap before we were militarily ready. We started with less than an infantry battalion when the South Koreans had their backs to the wall. We opened up on the offensive. When we have to fight, we Americans like to fight on a big scale, with plenty of elbow room. However, because we did not want to enlarge the war unnecessarily by bombing in Manchuria, we have tried to fight the war in a limited area. The decision not

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to extend the bombing to Manchuria and China was taken after long and careful thought. It was felt that the results would not be decisive; that such attacks might incite hostile bombing behind our lines or might bring on a general war. It has given some a feeling of frustration that we have withheld part of our air power. Americans felt like a fighter who does not really have enough room to swing. We have withheld what people consider our Sunday punch—the atomic bomb—because strategic bombing to be effective must be aimed at the source of supply. And we all know that the main source of Communist supply is not in China. There is no guarantee that air power in any of its dimensions would be decisive. An air attack by the United Nations on China might possibly trade the small deadlock in Korea for a larger stalemate in China. Even with our war limited to Korea, however, we proved to the enemy that his aggression was not successful."

When it comes to the problem of global strategic planning—in distinction from current military operations—the application of the principles of war in the event of another world-wide conflagration is easier because the limitations which we have imposed on ourselves in an effort to avoid such a calamity will be gone.

Understanding by the people of our country of the necessity of operations which conform to sound principles even at the cost of not being able to take action, even defensive action in American territory, may well be vital to eventual success. Amateur strategists and political interferers have caused military disasters all through history, not because they were ignorant of military techniques, but because they unknowingly advocated violation of the principles of war.

Jomini (a protege of Napoleon), whose book, *The Art of War*, had considerable influence on our Civil War commanders, had this to say: "The only reasonable theory of war is that which . . . admits a certain number of regulating principles but leaves to natural genius the greatest part in the general conduct of war, without trammeling it with exclusive rules." War, like everything else, is more complex than it was when Jomini wrote those lines nearly one hundred and fifty years ago. If he were to rewrite them today, he would probably emphasize the importance of the "certain number of regulating principles."



The allied invasion of Normandy on 6 June 1944 was in itself a triumph of the power that can be achieved at a decisive point by applying the principle of mass. But that concentration would not have been possible had not the allies obeyed other principles of war. First was the principle of the objective—the decision that Hitler's Nazi empire was to be destroyed before full power would be brought against the Japanese. Second was the principle of unity of command—the U. S. and Great Britain (and the other allies) merged all forces under a single headquarters and commander: SHAEF and Eisenhower. Third was the principle of the offensive—the evils of Naziism could only be wiped out when the military power of the German nation was destroyed and allied armies occupied the German heartland. There was nothing simple about the massive and intricate structure of SHAEF's forces, but when developments demanded the exertion of the principle of simplicity the gears were adjustable—as when First Army and 12th Army Group changed their plans to take advantage of the unexpected capture of the Remagen bridge.



FROM THE SCHOOLS

THE INFANTRY SCHOOL

Heavy Mortar Officer Course

The Infantry School will open its first Infantry Heavy Mortar Officer Course in July. The new five-week course will train officers to command, supervise and direct the fires of infantry heavy mortars in support of combat elements. Upon satisfactory completion of the course an MOS as a fire direction officer (1188) will be awarded.

The prerequisites for the course are: (1) Must be a commissioned officer on active duty or a member of a reserve component whose assignment, actual or anticipated, is to an infantry heavy mortar battalion. (2) Must have credit for the Associate Infantry Company Officer course. (3) Mathematical background to include algebra, trigonometry and slide rule is desirable.

New Platoon Leader Course

TIS will also start a new ten-week Basic Infantry Officer Course for newly commissioned second lieutenants in July. Emphasis will be on teaching basic Infantry weapons and developing the junior leader's ability to command a platoon both in combat and garrison.

Students will be recent graduates of the United States Military Academy, ROTC, battlefield commissioned officers, and newly commissioned officers of the National Guard.

Japanese Officer Training

The training of Japanese National Safety Force Officers will begin in May. The training is being conducted at the request of the Japanese government and will last for about five months.

Korean Officers

Fort Benning is now training its fourth special class of Korean officers for the Republic of Korea Army. The officers receive extensive training in weapons, tactics, logistics and operations. Upon completion of the four-month course they return to their homeland where most will assume the duties of platoon, company and battalion commanders in the ROK Army, or instructors in ROK Army service schools.

THE ARTILLERY SCHOOL

FSC Circular

A new training circular on coordination of fire support has been prepared by TAS and forwarded to OCAFF for approval. This draft circular replaces TC 23 (3 August 1951). It reflects current thought and recent experience on fire support principles with certain doctrinal changes and elaborates on the organization and functions of fire support coordination centers. Also delineated are the responsibilities of commanders, staffs, and representatives of fire support agencies with respect to fire support coordination. Particularly noteworthy is the clarification of the artillery officer's status and function as fire support coordinator.

New light is shed on the problem of the physical location of the FSCC and FDC with respect to the supported unit's CP. The FSCC is located at the force (supported unit) CP; the artillery FDC where necessary to best control the fire of its elements.

Flexibility in the composition and establishment of the FSCC is stressed. Functions of individuals in the FSCC are varied to fit the particular situation. As a general guide applicable to all combat echelons, the FSCC at division level is described in detail in the circular

The objective of fire support coordination is restated with new emphasis. It is to achieve maximum effectiveness in the use of fire support without adversely affecting any of the present methods used in obtaining rapid delivery of fires essential to operations. As an example, a forward observer continues to request immediate fire from his battalion directly, not through the FSCC. Similarly, if the artillery S3 desires immediate additional artillery fire, he requests it of the next higher field artillery echelon. The FSCC is usually not involved in this type mission.

The method of presenting the plan of fire support has been improved. The commander's concept of the maneuver and supporting fires is now presented in paragraph 2*b* of the operation order. The fire support portion of the concept is reflected and amplified in the fire support plan annex to the operation order. The fire plans of individual supporting elements, such as artillery, navy, or air, are included as appendixes to the fire support plan annex when appropriate.

New Technical Bulletins

Department of the Army technical bulletins now going to the field prescribe procedures for bore sighting, testing, and operating fire control equipment.

These bulletins point out that laying for elevation using the gunner's quadrant on the leveling pads of the breech ring is incorrect because the accuracy of the setting is affected by the elevation of the tube and by cant of the trunnions. When using the gunner's quadrant at the higher elevations, errors are usually introduced when the quadrant is reversed to set elevations greater than 800 mils. As specified in current artillery training literature and as emphasized in the technical bulletins, elevations should always be set on the cross-leveled elevation scales unless they are known to be inaccurate.

Another cautionary note provided by the technical bulletins is for the cannoneer setting elevations to coordinate his actions with those of the gunner so that before he calls, "set," he observes that the gunner has laid the gun on the aiming posts or point. Any movement of the gun in deflection will generally throw the bubbles off level and requires that the gun be readjusted in elevation. Conversely, if a change in elevation is made after the gun

REUNIONS

1st Armored Division. 28-30 August. Shoreham Hotel, Washington, D. C. For details write: 1st Armored Division Assoc., 1529 18th St. N.W., Wash., D. C.

3d Armored Division. 23-25 July. Milwaukee, Schroeder Hotel. For details write: Secretary, 3d Armored Div., 80 Federal Street, Boston 10, Mass.

8th Armored Division. Bellevue-Stratford Hotel, Philadelphia. 3-5 July. For details write: Henry B. Rothenberg, Room 1008, 33 N. LaSalle St., Chicago 2.

24th Infantry Division. St. Louis. 14-16 August. For details write: J. Peyton, 131 N. Culver St., Baltimore.

27th Division. 9-10 October. Syracuse, N. Y. World Wars I and II. For details write: National Headquarters, 27th Div. Assoc., Box 1403, Albany, N. Y.

37th Division. 5-7 Sept. Mayflower Hotel, Akron, Ohio. For details write: 37th Div. Headquarters, 21 West Broad Street, 1101 Wyandotte Building, Columbus 15, Ohio.

75th Infantry Division. Washington, D. C. 14-16 August. For details write: John D. McBurney, 5822 E. 14th St., Kansas City, Mo.

83rd Infantry Division. Hotel Hollenden, Cleveland. 20-22 August. For details write: Headquarters, 83d Inf. Div. Assoc., 1435 Clark Street, Pittsburgh 21.

94th Infantry Division. Hotel New Yorker, New York City. 23-26 July. For details write: Bernard Frank, Reunion Chairman, Commonwealth Building, Allentown, Pa.

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is laid for direction, the gunner should recheck the centering of the telescope mount bubble and the alinement of the sight with the aiming posts (point) before calling, "Ready."

The bulletins received to date (TB 9-325-8 and TB 9-331B-1) indicate that the first step in the bore sighting procedure is a check of the elevation scales to insure that an elevation set on the scales coincides with the elevation of the tube when the bubbles are level. This check would be performed at zero elevation for those guns that can be depressed to zero and at the minimum obtainable elevation for those that cannot be depressed to zero. The key to accurate bore sighting is the use of a *tested* gunner's quadrant and the regular performance of the prescribed basic periodic tests.

Simultaneous Observations

The mission of corps artillery survey is to establish common survey control for the artillery with the corps to facilitate massing of fires. The most important element of this control is direction.

The Department of Observation, TAS, is now teaching a technique which will aid considerably in establishing common direction in a minimum of time. This technique, descriptively called "simultaneous observations," is based on the assumption that the lines of sight of several instruments are almost parallel when sighted simultaneously on the same celestial body. Once the azimuth of one of these lines of sight is known, the azimuth of the remainder can be determined by applying appropriate corrections for the horizontal displacement of the instruments. Thus, the artillery with the corps may be furnished common direction in a matter of minutes once the instruments are set up and communications established.

Astronomic Survey Course

An astronomic survey course was begun at TAS on 27 April. This course is to train survey officers and enlisted members of the field artillery missile battalion to perform the field work and make the computations required to obtain an extremely accurate azimuth by astronomic means. Students in this course must be trained survey officers or trained enlisted survey specialists.

TAS Catalog

A new Artillery School Catalog of Instructional Material has been published recently. The purpose of the catalog is to —(1) Provide a reference index to instructional literature and training aids prepared for resident instruction by The Artillery School; (2) provide a list of miscellaneous school and training supplies and professional texts available for purchase from TAS Book Department; and (3) provide instructions for ordering the above items from the Book Department by those individuals and agencies authorized to purchase. The price of all items is included.

INFANTRY SCHOOL INSTRUCTIONAL MATERIAL

The following new instructional material suitable for non-resident as well as resident instruction may be ordered from the **Book Department, The Infantry School, Fort Benning, Ga.,** at the prices shown. (The COMBAT FORCES Book Service regrets that it cannot handle orders for these pamphlets.)

Helpful Hints for Rifle Marksmanship Instructors, Assistant Instructors, and Supervisors. Pertinent comments on observations of officers of The Infantry School who recently toured training divisions in the Zone of Interior. These observations and comments pertain to Rifle Marksmanship and are offered for your information and guidance. 10¢.

Mechanical Training, M1 Rifle and Carbine M2. No. 1103. Proper methods in care and cleaning, operation, stoppages, immediate action, effect of wind, sight changes and use of the score card. General data and mechanical training of the M2 Carbine. 4 hours. 10¢.

Preparatory Rifle Marksmanship, Rifle, Cal. .30 M1. No. 1125. Basic principles of preparatory marksmanship, sustained fire exercises, adjustment of binoculars. 4 hours. 10¢.

Mechanical Training, Cal. .50 MG, HB, M2, Ground. No. 1306. Disassembly and assembly, functioning, headspace adjustment, and use of headspace and timing gauges. 2 hours. 10¢.

Technique of Fire, 57mm, 75mm, and 105mm Rifles. Nos. 1781 and 1782. Techniques of direct fire, indirect fire, and fire from position defilade. 4 hours. 10¢.

Rifle and Weapons Squads in Offensive Action. No. 2043A. Tactical employment of the rifle and weapons squads in offensive action. 2 hours. 15¢.

Recoilless Rifle Platoon in Attack. Nos. 2091-2091A. Organization and duties of personnel, selection of firing position areas, tactical employment, and supporting fires. 2 hours. 15¢.

Battalion in Attack, Use of Reserve. No. 2229. Tactical employment of the reserve battalion in attack, to include: plan of attack, attack order, subsequent actions and orders. Principles of employment. 4 hours. 35¢.

Tactical Employment of Artillery. No. 2655. Mission, capabilities and limitations, types of fires, tactical missions, coordination with the supported arm, duties of forward observers and liaison officers, and fire planning. 2 hours. 10¢.

Military Correspondence. No. 6512. Preparation of military correspondence, channels of communication, the operation of the correspondence file, and the types of routine orders. 3 hours. 25¢.

Personnel Procedures. No. 6521. The commander's responsibility for the personnel procedures of classification assignment, promotion, and the career guidance and career management programs. 2 hours. 15¢.

The Aggressor Army. No. 6601. Purpose and use of Aggressor Army as an aid in adding realism to field exercises, CPXs, small unit problems, and map maneuvers. 1 hour. 10¢.

Order of Battle. No. 6608-A. A discussion of order of battle to include definitions, techniques, maintenance of records, and practical work. 1 hour. 10¢.

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★ BOOK REVIEWS ★

NEAT BUT NOT CONVINCING

WINGS FOR PEACE: A Primer for a New Defense. By Bonner Fellers, Brig. Gen., U.S. Army, Ret. Henry Regnery Company. 248 Pages; Illustrated; $3.50.

"This book will shape national policy!" says the publisher's blurb. Perhaps it will. An Army general outdoing de Seversky as an advocate of strategic bombing by land-based aircraft is certain to attract the attention of politicians, columnists, and editorial writers. And this is particularly true when the general writes with the clarity and persuasiveness of General Fellers.

The New York Times review summed up the book with a headline, "The General Wants More Planes." *The Saturday Evening Post* based an editorial on it. Constantine Brown devoted most of a column to quotes from the book, and various editors are finding it a good source of material for advocating an increase in Air Force strength.

Mr. Brown, incidentally, incorrectly identified General Fellers as an infantryman. Officially, Fellers was a coast artilleryman until he became a general officer in 1942, but actually he was a staff officer during much of his service. In several staff capacities he was closely associated with General MacArthur, and after retirement was for a time with the Republican National Committee. It is not surprising that he emphasizes that Secretary of State Dean Acheson had stated that our defensive perimeter in the Pacific ran through the Aleutians, Japan, the Ryukyu Islands and the Philippines, that "doubtless the Korean Reds would not have struck had they known the United States would intervene," and that neither the Joint Chiefs nor General MacArthur had ever contemplated the commitment which President Truman ordered of ground forces on the Asiatic mainland.

These comments are in a chapter called "U.N. Containment-East" in the first part of the book, a part devoted, in the author's phrase, to "telling the worst" about our "present military realities." He goes on to point out, in a chapter called "No Containment-North or South" that "it is a towering reality that aggressive Russia is confronted by no effective barriers on her northern and southern borders."

It is on the subject of "NATO Containment-West" that General Fellers is most vitriolic. He believes that a more erroneous conclusion could hardly be reached than to believe that NATO forces now constitute a real war deterrent, and that therefore Moscow has been compelled to give up the idea that western Europe could be invaded. On the contrary, he says, "Europeans have little confidence in NATO's old-fashioned and hopeless war plans," and the Kremlin, grasping this fact, will endeavor to turn Europeans against the United States, encourage them to relax their defense preparations, and to nurse their national grievances. Europeans can then be terrorized into a choice between total devastation by air strikes and a Red Army sweep to the Atlantic, or neutrality.

"Under these circumstances," General Feller says, "Americans who believe in justice and fair play and in Europe's civilization, could hardly ask our Allies not to seek neutrality." Elsewhere, he says that "American planners must consider the possibility that-to-survive-Great Britain might be compelled to be neutral." The question naturally arises, when this line of argument is advanced, whether Russia is likely to permit neutrality. "Neutrality" might well turn out to be enslavement.

Much that General Fellers says about the difficulty of NATO's defense task is undoubtedly correct, but he ignores or brushes off the difficulties on the Russian side of the picture; their probable inferior mobility; their long supply lines; the doubt about the Soviet fighter's effectiveness in an aggressive war in contrast to his tenacity in defense of his homeland; the NATO forces' intimate knowledge of the terrain and their ability to fight, in some degree at least, on ground of their own choosing; the probable NATO ability to use atomic explosives placed, not delivered by plane or artillery, in key routes of advance; the probable effectiveness of persistent gas; and the fact that equality of manpower is not essential to a successful defense, as has been again demonstrated in Korea.

General Fellers says flatly that "it is known that no progress exists to create sufficient NATO air power to control the air over NATO defenses." He makes the familiar charge that "our military establishment is being shaped along the line of the last three wars rather than meet the conditions of the next war." Infantry generals, he says, have long dominated our military planning and still believe that war can be decided finally only by ground combat. The "bayonet fighters" are inclined "to build all the cannon, tanks, ships, aircraft and infantry and armored divisions that our economy and manpower will stand."

Before going on to his outline of "the new defense" in the second part of his book, General Fellers sets forth "seven obvious facts":

(1) Our supply of long-range bombers is so small that all would be lost in a few weeks of war.

(2) Our interceptor fighter force is too small to offer even reasonable air defense of American air bases, war industry and population centers

(3) U.S. antiaircraft defenses are inadequate.

(4) The defense against a Red submarine threat to coastal cities and shipping is not solved.

(5) Ground forces have not been allocated for the defense of our existing strategic bases (Alaska, United States, Greenland, Iceland, Labrador, the Azores, and North Africa).

(6) NATO ground forces are wholly inadequate. (At least 100 divisions are needed to meet the initial phase of a Red attack; there are now 25.)

(7) Enough air cover for NATO ground forces is not even on order.

He also points out that we face an enemy which outnumbers us, that rocket and jet propulsion have moved aircraft into supersonic speeds, that atomic and hydrogen bombs now have much more power than the bombs dropped on Hiroshima and Nagasaki, and that Russia could deliver atomic bombs over every NATO capital eighty minutes after its twin jet bombers take off from East Germany, and could explode them in a matter of hours over American air bases and industrial areas. Despite all this, Fellers says, "we still plan to fight for a line."

His solution is "the best air force in the world, supported by an adequate army and navy." He believes that once this policy is given to the Joint Chiefs of Staff we shall have effective cooperation and a true defense. He develops his thesis with logic and clarity, but "the best air force in the world" brought up to the strength that Fellers believes necessary would presumably require cuts in Army and Navy appropriations to a point where it would be doubtful that we would have an "adequate" Army and Navy. Then, too, some of the statements presented as facts in his arguments may well be more accurately described as opinions. *The New York Times* review previously referred to concludes that General Fellers is "not always convincing in his answers" and that "the issue is too complex to be settled so neatly."

The fact is, of course, that retired officers (this reviewer included) and newspaper columnists (Drew Pearson and the Alsops included), free of the awful responsibility that rests on the shoulders of the Joint Chiefs of Staff, can appear to solve vital problems with simple solutions which they might be very slow to adopt if theirs was the authority and responsibility.—MAJ. GEN. H. W. BLAKELEY.

A JOB THAT NEEDS DOING

THE UNEDUCATED. By Eli Ginzberg and Douglas W. Bray. Columbia University Press. 246 Pages; $4.50.

Ask any GI, "Could we have used eighty-nine more divisions in World War II?" The answer, of course, is yes. Enough prospective recruits in World War II were found mentally deficient to man eighty-nine divisions—716,000 of them. In the first year of the Korean war, 300,000 were rejected for the same cause. It would be impossible to know how many of these men were truly mentally deficient, and

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how many were the victims of a mere lack of education, but there are some figures here that indicate we have a problem.

During World War II the military services, appalled by the number of men who couldn't read warning signs and bulletin-board notices, and forced to take these men by law, instituted special training units to offer them a quick basic course in reading and writing. According to the authors, these courses made fair and even good soldiers out of many an eight-ball, and should be an activity of the armed forces in peace and war. The armed forces have different ideas: living in a country where every activity of the military is looked upon as another grab for the supreme power, dabbling in mass education would be an invitation for the pseudo-liberals to scream that fascism is here. This is someone else's job and they ought to be at it. There are other good reasons, too, why the military doesn't want the assignment. The military believes that its peacetime personnel is a cadre, and should consist of exceptional men rather than marginal discards so the private of today can be the zebra-striped NCO or the Second John of the expanded army. This makes sense, as does the thought that appropriations are hard to come by, and they should be used for military training rather than in doing a job that should be done before the man ever takes the oath.

The authors point out that those who lack education come from the poorer states that just can't afford the outlays that good teachers and proper schools would require, and that even if the money were there, the Negro, the back-country resident, the Navajo on the reservation, and the uneducated man who works a full day on a job and lacks motivation to spend his evenings on book l'arnin', all would bring special problems. The book holds to the belief that eradication of illiteracy by its very nature is a federal, rather than a state problem, and the best federal agency to move in on a solution is the armed forces, more specifically, the Army.

The book covers more ground than this, however. The military provided the figures for the study on the basis of World Wars I and II and Korean experiences, and the military was chosen by the authors as the agency to lick the problem, but the hard facts have their application in industry and commerce as well. A man who can't fill out an application blank, or read a sign that says "DANGER—22,000 Volts!", or figure out his pay after deductions for income tax, social security, hospitalization and flowers for the foreman's wife, is a nuisance in any industrial operation. Furthermore, he can't be promoted, so his on-the-job training is partly wasted, and it takes longer to train him because he can't study the manuals that come with the machine.

The authors pull no punches in explaining how the Army lost its shirt to the Navy and Air Force during World War II when it came to dividing up the more intelligent men at the induction stations. Every infantry soldier has his stories of the thickheaded character who almost got everyone killed because he couldn't read, while Ph.Ds swept out Air Corps barracks.

We'll go along with Messrs. Ginzberg and Bray: something had better be done before we tangle with the Red first team, or we're going to be using atomic scientists and nucleonic experts in infantry squads for lack of men, while strong-backed expert marksmen get tight every Saturday night at the county seat. But we agree with the armed services—it's someone else's job. We have troubles of our own.—A.S.

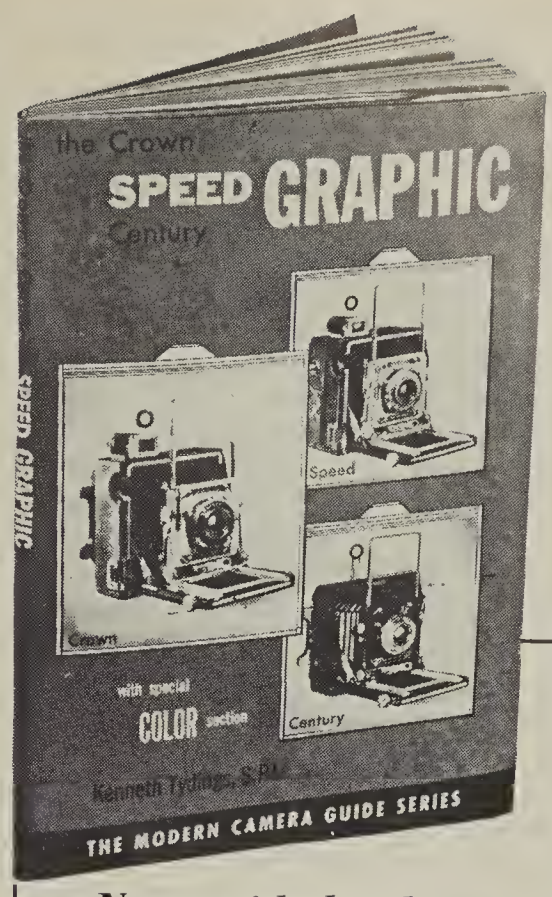
UP THE LADDER TO THE P. I.

THE APPROACH TO THE PHILIPPINES. United States Army in World War II. By Robert Ross Smith. Government Printing Office, 1953. 600 Pages; Illustrated; Maps; Index. $5.00.

This volume is in a sense a testimonial to the dominant personality of General Douglas MacArthur. It was through his almost singlehanded efforts that the Philippines were "approached." The strategic background of the war in the Pacific had reached an impasse early in 1944. The Joint Chiefs of Staff and Admiral Nimitz believed that the route through the Central Pacific to the Japanese homeland would be strategically more decisive while MacArthur felt that our tremendous moral obligation to liberate the Philippines was an overriding consideration. The issue was not finally decided, however, until the Hawaii conference in July 1944, attended by President Franklin D. Roosevelt, Nimitz and MacArthur, at which time General MacArthur brought the President into sympathy with his views.

The approach to the Philippines took a route through New Guinea, Wakde, Biak, the Vogelkop Peninsula, the Palaus, and Morotai. These operations were the proving ground for the Sixth Army (and later the Eighth) that fought in the Philippines. Few battles have been fought under worse climatic and terrain conditions. And it seems most likely, few battles have been undertaken with poorer intelligence, maps and reconnaissance. Add to these the unusually difficult problems of shipping and logistics generally and it isn't difficult to conclude that good fortune and poor Japanese leadership contributed in a large measure to our success. The indomitable spirit; courage and resourcefulness of the American soldier and the U.S. superiority in weapons, supplies, equipment, air and naval power must be given a large share of the credit.

Since all of these operations involved close collaboration between land, sea and air forces, the planning that went into them was usually complex. The necessity for coordinating with the Central Pacific Theater for air, naval and shipping support was another harassing factor. Quite rightly then, the author opens his book with a rather detailed study of the staff work that went into the Hollandia opera-



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tion. This operation embodied most of the difficulties that cropped up in future planning.

There was not much variety in any of these various operations. All but one of them involved amphibious landings on comparatively lightly manned, enemy-held islands. Jagged coral reefs, mangrove swamps, dense rain forest and steaming jungle were constantly before our forces. There were many protracted and bitterly contested battles before most areas were secured.

Fortunately, only one of these landings was seriously opposed on the beaches by the Japanese, and that confronted the Marines at Peleliu. Had they been so opposed, serious disasters could have occurred and our casualties would have been greater. That these landings weren't strongly contested was due more to good luck than good planning. Almost without exception our intelligence was woefully weak. The enemy's strength, location and capabilities were almost never known and in a half-dozen instances, the beaches chosen for landings proved impassable or no suitable routes for exploitation of the landings could be found.

The landing at Tanahmerah Bay near Hollandia is an example. At Red Beach 2, which was selected as the principal landing area, the terrain was found to be much more difficult than had been anticipated. "Contrary to estimates, which had been based primarily on interpretation of aerial photographs, Red Beach 2 proved to be but thirty yards deep. Behind this narrow beach was discovered a wide swamp covering most of the area which the task force had planned to use for bivouacs and supply dumps. The swamp was soon found impassable for everything except the individual infantrymen bearing only small arms." Then it was discovered that there was no trail connecting Red Beach 2 with Red Beach 1 where the remainder of the force was landing and it proved impossible to build such a road. The landings in the Palaus were the only Central Pacific operations covered in this volume. They rank among the most costly battles of the war. The 1st Marine Division was assigned to take Pelelieu and Major General Ruppertus, the Division Commander, estimated he could take the island in four days. He was wrong by two and a half months. After about five days, the 81st Division, which had completed its mission of capturing Augaur, was called in to assist the Marines and stayed until the Japanese were defeated. The combined Army and Marine force killed or captured 14,000 Japanese while incurring 9,800 battle casualties themselves.

Robert Ross Smith has done a fine detailed history of this tedious march back to the Philippines. Each of the operations is described in detail and augmented by fine sketches, maps and illustrations. His work is well but unobtrusively documented and while he has sympathetically understood the difficulties under which our troops labored, he has retained a critical objectivity which certainly enhances the usefulness of this work. Since he presents too the strategic and high-level background which spawned these operations, with his frequent summation of Japanese dispositions and strategy, he provides the means which make this volume a self-supporting effort and a top-notch battle history.—R.F.C.

BISMARCK'S GRANDSON AND THE REDS

I JOINED THE RUSSIANS. By Count Heinrich von Einsiedel. Yale University Press, 1953. 306 Pages; Index; Illustrations. $4.00.

This is the story of a young man who decided to help the enemy of his country for what he devoutly believed to be the good of his country. The young man was the twenty-one-year-old German fighter pilot, Count Heinrich von Einsiedel, shot down before Stalingrad in 1942. He was Bismarck's great-grandson, and undoubtedly because of Bismarck's policy of cooperation between Germany and Russia he became the object of special interest to his Russian captors.

There is no question of Einsiedel's physical courage. He was credited with thirty-five enemy planes shot down when he became a prisoner. If one can accept all the details of his story, there is also ample evidence of a high degree of moral courage in his relations both with the Communists and the Nazis. He recalls how his family and friends at first welcomed Hitler and the Nazis. But after the *Putsch,* he relates, many Germans hated Hitler for his reign of terror and corruption. Einsiedel himself, because he believed that "criminals" like Hitler and his colleagues were heading his country toward the inevitable ruin, decided to help bring about its defeat when he became prisoner.

His book tells the military reader how the Russians recruited, organized, and trained the Free German Committee for psychological warfare and what their methods were. It tells how they treated prisoners of war and persuaded generals like Von Paulus to join them, and discusses the effectiveness of their strategy and tactics.

But the book is chiefly the story of a young man's conversion to Communism and his subsequent disillusionment. It is a devastating indictment of Communism that describes in detail the gulf between the theory and practice of that materialistic religion. But we shall first consider his purely military comments.

Although he believes a hot war can be avoided, Einsiedel is convinced that if one does come the vast spaces of Russia will no longer serve as an obstacle to victory by the West. Today's motor vehicles have made that space far less a hindrance to invasion than it was in the Napoleonic era or even in Hitler's campaigns. Furthermore, he is certain that the West has overestimated the military achievement of the Soviet counteroffensive from Stalingrad to Berlin. He affirms that:

The Soviet army crushed the Wehr-

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macht with its weight but did not defeat it by means of strategy. And owing to the clumsiness of the Soviet strategic leadership, the lethargy of the middle and lower officer corps, and the lack of initiative in all ranks, the cost in blood of this advance was disproportionately high. Even the battles of annihilation which the Red Army won were in no instance, even in the case of Stalingrad, due to its initiative. Rather they were presented to it by Hitler through his disregard for the most elementary laws of strategy. In the areas where the insane corporal did not have his finger in the pie, similar threats were successfully met by even mediocre General Staff officers through tactical and strategic maneuvers of evasion.

Although Einsiedel believes that a Soviet offensive against Western Europe today would undoubtedly be initially successful, he insists that the Russians would be utterly unable to organize militarily and politically to defend and control the occupied territories and make use of their resources for war. He is also of the opinion that the fighting morale of the Soviet Army, which was "none too high even when they were defending their own home soil," would be lowered to a disastrous degree by seeing the far higher standard of living of the countries they were invading. He emphasizes the fact that with no American supplies—they were of paramount importance in the Russian victory against Hitler—the Red Army would be at a great disadvantage. Einsiedel says, too, that during his early years as a prisoner in Russia, "if it had not been for the tinned meat from Chicago, millions would probably have died of hunger."

There are other military aspects of his story, but its main interest lies in its analysis of Communism. Einsiedel's conversion to Communism was the consequence of his indoctrination in the writings of Lenin soon after he was taken prisoner. This convinced him that the Marxist concept of society provided a positive program for avoiding economic crises and mass unemployment, which neither the Church nor Democracy had been able to prevent. He apparently swallowed all the tenets of the Communist faith, yet by the middle of 1944 he was profoundly aware of the contrast between the theory and the practice of Communism. It is hard to understand why he continued to believe in Communism while a prisoner in Russia until 1947, and did not break from it until he had been in East Berlin nearly a year.

At that time he went to the American sector where he was imprisoned and charged with possession of false papers and with espionage. His conviction on these charges and his subsequent months in solitary confinement proved to be his road to Damascus. He had seen and recorded in previous years from personal observation in Russia the corruption and the misery of life in the Soviet Union. As early as 1944, he referred to life in Russia as lived in "this anxious atmosphere poisoned by suspicion, hypocrisy, and Byzantine intrigue." During his months of enforced contemplation in an American prison, he began to realize that the materialistic interpretation of man and his history imposed on the Russian people by a brutal Communist party, without any ethical or spiritual basis, was bound to fail. A reign of terror and denial of intellectual and spiritual freedom must inevitably continue to be the policy of the Soviet rulers, and he had had enough of that.

This denunciation of the Soviet regime by a disillusioned convert to Communism is not lessened in effectiveness by Einsiedel's unwillingness to accept Western democracy as the ideal refuge for an ex-Communist. His enthusiasm for the United States is somewhat restrained, to say the least. But since his views are shared by many foreigners they should be kept in mind. He writes:

"But is Americanism a future worth striving for? Haven't pursuit of the dollar, the conveyor belt, skyscrapers, crime thrillers, the jazz mania done more to demoralize the world and turn man into a mass creature than could a collectivist party dictatorship inspired by a socialist ideal? Where is the towering cultural achievement of America which would lend inner justification to the wealth of its ruling classes?"

This widely held stereotype of the United States is convincing evidence of the great need for increased efforts on the part of this country to counteract these impressions which vastly diminish our influence abroad.—Brigadier General Donald Armstrong.

BOOKS RECEIVED

DICTIONARY OF GAMES. By J. B. Pick. The Philosophical Library. 318 Pages; Illustrated; Index; $4.75. How to play 450 games, indoors and outdoors.

POPULAR MECHANICS MANUAL FOR FORD OWNERS. By C. E. Packer. Popular Mechanics Press. 304 Pages; Illustrated; Index; $3.50.

ERIC SLOANE'S WEATHER BOOK. Duell, Sloan and Pearce-Little, Brown and Company. 90 Pages; Illustrated; $3.75.

STUDIO: ASIA. Written and Illustrated by John Groth. The World Publishing Company. 208 Pages; $4.95. A report on the Korean war by the author of *Studio: Europe*. Complete with his own drawings.

ELIAS BOUDINOT: Patriot and Statesman 1740-1821. By George Adams Boyd. Princeton University Press. 321 Pages; Illustrated; Index; $5.00.

THE BEST HUMOR ANNUAL. Edited by Louis Untermeyer and Ralph E. Shikes. Henry Holt & Company. 334 Pages; $3.75.

GOOD FOR A LAUGH. By Bennett Cerf. Garden City Books. 220 Pages; Illustrated; $2.00.

THE BERLIN STORY. By Curt Riess. The Dial Press. 368 Pages; $3.75.

SMITH'S LONDON JOURNAL. By H. Allen Smith. Doubleday & Company, Inc. 288 Pages; $3.00. One of our favorite zanies reports on his trip to London.

JORDAN'S DICTIONARY OF CIVIL DEFENCE. Edited by Carlton Wallace. Philosophical Library, Inc. 160 Pages; Illustrated; $2.75. A British effort.

CANADA: THE GOLDEN HINGE. By Leslie Roberts. Rinehart & Company, Inc. 288 Pages; Illustrated; $3.50. A description of a new Canada important economically.

AMY VANDERBILT'S COMPLETE BOOK OF ETIQUETTE: A Guide to Gracious Living. Doubleday & Co., Inc. 700 Pages; Illustrated; Index; $5.75. This is a new kind of etiquette book which recognizes the fact that many people do not have servants and that there are thousands of families without a full dress suit.

ONE-UPMANSHIP. By Stephen Potter. Henry Holt and Company. 177 Pages; Illustrated; $2.75. By the author of *Gamesmanship* and *Lifesmanship*.

WILLIAM SHAKESPEARE: THE COMPLETE WORKS. Edited by Peter Alexander. Random House. 1376 Pages; $3.75.

EUROPE, second edition. By Samuel Van Valkenburg and Colbert C. Held. John Wiley & Sons, Inc. 826 Pages; Illustrated; Index; $7.50. Emphasizes biographical factors.

WHERE TO RETIRE AND HOW: A Comprehensive Guide. By Fessenden S. Blanchard. Dodd, Mead & Company. 299 Pages; Illustrated; Index; $5.00.

REPORT FROM PARADISE. By Mark Twain, with drawings by Charles Locke. Harper & Brothers. 94 Pages; Illustrated; $2.50.

U. S. ARMY IN WORLD WAR II, Pictorial Record, The War Against Japan. Edited by Kent Roberts Greenfield. Office of the Chief of Military History. 471 Pages; Illustrated; Index; $3.50.

ARMS OF OUR FIGHTING MEN: Bazookas, Big Guns, Tanks.

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By Major C. B. Colby, CAP. Coward-McCann, Inc. 62 Pages each; Illustrated; $1.00 each.

CONTEMPORARY ETHIOPIA. By David A. Talbot. Philosophical Library. 267 Pages; Index; $4.50.

HOW TO TRAIN SUPERVISORS, 4th revised edition. By R. O. Beckman. Harper & Brothers. 335 Pages; Index; $4.00.

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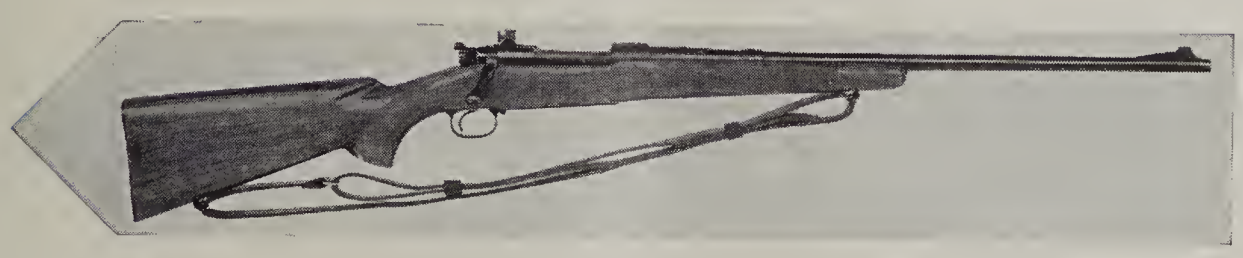
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TO THE EDITORS

FROM A RETIRING COUNCIL MEMBER

I HAVE been a member of the Council of the Association of the United States Army, which publishes the COMBAT FORCES JOURNAL, for over two years, and I am now resigning because of transfer away from Washington. During that period there has been much discussion of measures to improve COMBAT FORCES JOURNAL, and considerable discussion on the desirability of merger of all Army combat associations, but in this whole time I have never heard of any move to *force* all of the armor people or all of the antiaircraft people, or all of the members of any other service association, into the Association of the U. S. Army. I do, however, know for a fact that many junior officers of other arms would welcome complete unification.

The fear of such highly desirable unification seems to exist chiefly in the minds of a few old-timers who remain very branch conscious. There is no fear of this unification on my own junior level. Most of my fellow officers would welcome the idea of one central combat association and JOURNAL with the backing and interest of the entire Army. They feel that such an association is needed for the common good. They have no preconceived ideas of branch partisanship. They know that the personal and professional problems of junior Army officers today exist regardless of branch insignia.

Many of us junior officers are also tired of seeing disparaging articles which contain half-truths about our chosen profession. We know that the public gathers wrong views from these articles. And with such views they can't make correct decisions on the Army policies they control or influence. We need a united defender of our profession that presents our views and problems to the public. Our sister services each have journals that support the points of view of their services.

Recently General Omar N. Bradley expressed a grave concern over the diminishing number of young men who accept the military as a career. Unjust criticism and faulty thinking by the young citizen himself probably have most to do with his decisions. They even get the idea that a military career doesn't present any challenge. Everybody seems to know what's wrong with the Army.

This was recently illustrated by the response a leading national magazine received to an article which dealt with the reasons why men don't fire their weapons in combat. This problem was first presented nearly ten years ago by General S. L. A. Marshall in the pages of one of COMBAT FORCES JOURNAL's predecessors, *Infantry Journal*. And through General Marshall's several articles the members of the Army became very aware of the problem. There is every indication that this awareness has resulted in a near solution being found by those doing the fighting in Korea. But *Collier's* received two pages of letters in response to the article, most of them offering solutions. What young man would want to enter a technical profession which has problems that can be solved by the general public? No challenge is presented to him.

The future is not all dark. The present crop of junior officers can be helped with both their military and personal problems by putting forth a strong united front. The COMBAT FORCES JOURNAL makes the best focal point on which all branches could unite. It isn't purely a branch house organ. It is the Army's own.

Our JOURNAL has opened its pages to everyone. Recently at least three purely armor articles have appeared in its pages and as many AAA pieces. It makes every effort to present conflicting viewpoints on tactics and weapons.

I WAS elected to the Executive Council of the Association of the United States Army shortly after the old Infantry Association was merged with the Field Artillery Association. Preliminary to the merger both the Infantry and Field Artillery councils set up contracts through which their own individual interests would be protected. Soon after, at the time I joined the Executive Council, none of its members thought any more in terms of these contracts. And in my two years and a half, I have seen how no one on the Council thinks in terms of a fellow member's branch. They think only in terms of whether the idea then before the group is for the common good—the good of the United States Army.

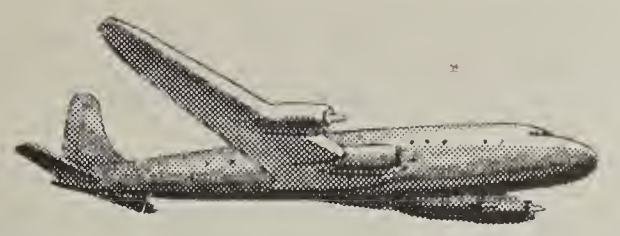
This idea also pervades the thinking of the editorial staff of COMBAT FORCES JOURNAL. The idea is solid and unquestioned. I venture that no artilleryman or infantryman will ever have to fall back on the formal merger contracts to protect the interests of any arm, including his own. Today the Council is composed of not only artillerymen and infantrymen, but also officers from Armor, Chemical Corps, Military Police Corps and the Corps of Engineers.

I have many tankers and AA men as friends. Many of my fellow infantrymen have attended the schools of those arms. We do not jump at each other's throats. In combat I've been glad to have my friend, the tankers, at my side. And the antiaircraft artillery supported both of us with fire. At times we protected tanks from enemy attack, killing Chinese who could have knocked out the tanks. It was a two-way street.

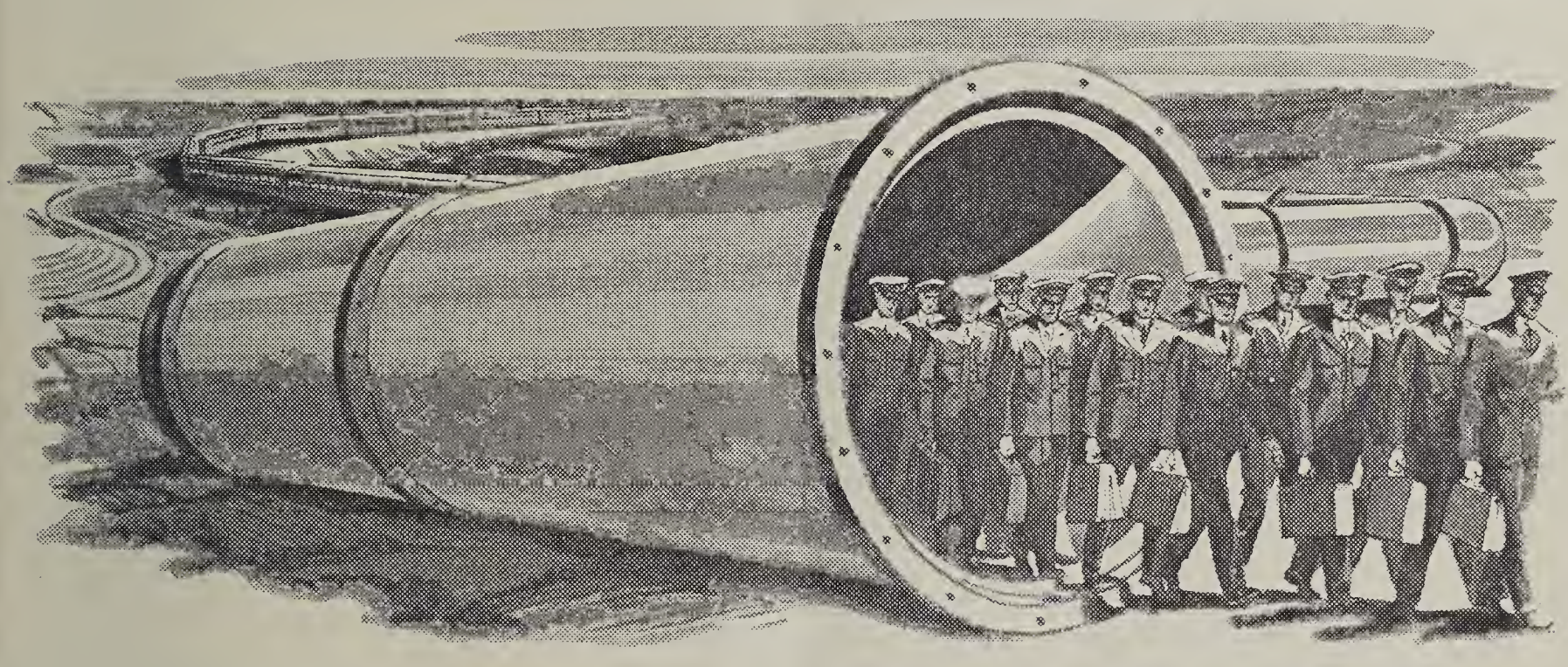
I would soon again like to have all soldiers of the combat arms at my side—in the ranks of our Army Association. But we should also have a lot more company. We should have all the medics, engineers, MPs, quartermasters, signalmen—all who make up the United States Army's team. We should join together, just as we do in battle, to promote our common cause—through The Association of the United States Army.

CAPTAIN WILLIAM M. GLASGOW, JR.

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★ To the Editors . . . ★

"They Fought to Save Their Guns"

To the Editors:

"They Fought to Save Their Guns" in the May COMBAT FORCES JOURNAL contains a serious inference regarding a conversation alleged to have taken place between Major John Fralish, Major Geoffrey Lavell, Major Carl Kopischkie, and myself. Colonel Marshall's article states: "To these three [O'Donnell, Lavell and Kopischkie], Fralish put a direct question: 'Shall we set everything in the column bumper-to-bumper, pour gasoline over all, torch it and go out fighting afoot, or shall we fight in place on a defensive perimeter?' Both battalion commanders [O'Donnell and Lavell] shrugged off the question. No one would take responsibility for decision. The conversation died."

From the above quotation it appears that I, as senior officer present, refused the responsibility devolving upon me at that time. This I desire to most emphatically deny. By inference, the other two officers were also derelict in their duty, by also refusing to act when I, as alleged, failed to do so. Major Lavell is MIA, and Major Kopischkie is a POW. I, therefore, must speak for all of us.

I have no recollection of any such question from Major Fralish, as quoted, or in any other form. The facts pertinent to this particular point are as follows: When the head of the 38th FA Battalion column was stopped by the tail of the 503d FA Battalion column, I walked forward to determine the cause of the hold-up. Before I reached the head of my battalion column, enemy fire from small arms and mortars hit one of the firing batteries. The battery returned the fire and temporarily silenced the enemy. From my existing knowledge of the situation I realized that I was faced with the decision of destroying our howitzers and fighting out on foot, or attempting to continue farther south on the road. The essential element of information lacking was "How effectively was the road ahead blocked?" In such a crucial decision I felt that first-hand knowledge was essential.

Accordingly, I instructed Major Kopischkie, as executive officer, to assemble the battalion in a defensive area, and to be prepared for either decision. I then walked forward and found Major Lavell and Major Fralish at the tail of the 503d column. I asked them to report on the extent of the physical block on the road ahead, and was informed that the 503d column had been hard hit but that they did not know whether it was possible to get our trucks and howitzers past the damaged vehicles. Without delay I continued to walk forward with the intention of personally determining the effectiveness of the block. As related by Major Fralish I was then fired upon and seriously wounded. Believing me dead, Fralish and Lavell returned to the rear of the 503d column and informed the 38th officers of my death. From accounts I have since received, Major Kopischkie then decided to destroy the matériel and to fight out on foot.

There are other errors of fact in the present article, as also in the article "Roadblock," by Major Fralish, which appeared in the January 1953 COMBAT FORCES JOURNAL. These I will ignore as I do not feel that this is the place to debate. As to the foregoing, I had the responsibility until my wounds and abandonment rendered me unable to communicate with my command.

I would like to interject one additional point. Colonel Marshall's article is arranged from his book, *The River and the Gauntlet*. In your advertisement of this book you state that his work is based on exhaustive interviews with the participants in the action. Here, in the matter of a most serious nature, failure to accept responsibility, a statement appears based apparently on the testimony of only one or two available participants. I have been available for interview since 18 December 1950, but to date have never been queried by anyone on any aspect of the action of the night of 30 November 1950.

I will appreciate action by you to correct the inference of the statement quoted.

LT. COL. ROBERT J. O'DONNELL
511 Second St.
Coronado, Cal.

● The following is Colonel Marshall's reply to Colonel O'Donnell:

"Dear Colonel O'Donnell:

"I only today returned from Korea. Otherwise I would have answered your letter before this as it was certainly due a prompt reply.

"The interviewing of Major Fralish was done at Hq Divarty as was that of other artillery officers. Colonel Goodrich was present. To put together the various parts of the Gauntlet narrative, I dealt with 256 tactical groups, besides various staff groups and commanders. I did not see you because you had been evacuated. It wasn't possible for me to see every person in the Division or every person who had become a casualty. But I did my utmost to get everything that was obtainable.

"In your letter to the JOURNAL, you wrote, 'The essential element of information lacking was "How effectively was the road ahead blocked?" In such a crucial decision I felt that first-hand knowledge was essential.'

"That is a perfectly accurate statement of the situation and the problem as I got it from all others and I think the description of the physical condition of the road shows that such a question must have been uppermost in the mind of every commander who was thinking of his troops.

"All that Major Fralish said, all that he could have implied, is that he was pressing for an answer to a question concerning which he could not see the answer, nor could any other man, up to the time when the wounding of yourself forced an attempt out of sheer desperation.

"The temporary postponement of decision is not a failure of command responsibility in an utterly obscure situation. I refer to the parallel at Bastogne where Colonel Julian Ewell pressed for orders and the two higher commanders hesitated to give them at the moment because both the friendly and enemy situations were unknown.

"Your failure to recall any conversation with Fralish is not a decisive point. Such happenings are commonplace under the pressures of battle. In the situation south of Kunuri, there are at least four other examples of the same thing occurring to commanders where other witnesses were able to attest that the conversation took place.

"You have asked action by the JOURNAL to correct any false impression of your soldierly conduct which might be implied in the report. For my part, I would commit myself to such an undertaking unreservedly. Everyone I spoke with attested your outstanding courage and competence. The men of your Battalion who were with you when you were brought wounded through the block spoke in admiration of your gallantry and of how your example had lifted them.

"In concluding, however, I think it throws further light on the difficulties of the situation to point out that by

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Vol. 3, No. 12 — **July, 1953**

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Major Fralish's own account (and he spoke always in admiration of you) the question as he phrased it had to be unanswerable at the moment: 'Shall we set everything in the column bumper-to-bumper, pour gasoline over all, torch it and go out fighting afoot, or shall we fight in place on a defensive perimeter?' These were equally hard and desperate options but they did not embrace the ultimate, accepted alternative—the attempt to bump on out with such fighting vehicles as could still be put on the road from the AA element.

"More was doubtless saved than might have come out had there been a decision at that moment in the terms of his question. What I wrote was taken verbatim from quotes made at the time. But the recital of the remainder of the story makes transparent that a further reckoning had to be taken, since it was the further reckoning which helped part of the column.

"I had hoped to do something that would give the public a better grasp of the tremendous heroism of the Division. However worthy that object might be, it would be vitiated if by omission I have done less than justice to one of its ablest officers. The task was a wearying one and I felt many times that I would have to give it up. Its satisfactions are for the moment gone because of the concern I have given you.

"A copy of this letter is going to the JOURNAL: I trust that they will print it. Meanwhile, I would like to hear from you and to know that I have your good will as you will ever have mine, along with my abiding respect.

"Sincerely yours,

"S. L. A. MARSHALL"

Detroit, Mich.
1 June 1953

The editors of the JOURNAL join with Colonel Marshall in his expression of respect for Colonel O'Donnell.

The Engineers Were There

To the Editors:

Your comments concerning Colonel Marshall and the article "They Fought to Save Their Guns" in the May issue suggest that the article is factual and not just a personal opinion of what might have occurred. Therefore I would feel remiss to point out a fallacy and omission in the first paragraphs of the article.

Colonel Marshall states that some of the artillery columns for the lack of road space had not yet formed in the road march, also that the artillery became the 2d Division's rear guard. But actually the 2d Engineer Combat Battalion, less only its personnel section and bridge platoon, were behind the artillery units. A portion of the engineer battalion was in column behind the artillery pieces at the time the column was completely blocked.

It should also be pointed out quite clearly that in the division's plan for withdrawal a complete RCT, which represented a large portion of the fighting potential the division could muster at that time, was left to form the rear guard of the division. Admittedly, as the tactical situation developed, the rear guard RCT was forced to make their withdrawal along a different route than that pursued by the other elements of the 2d Division.

The engineer battalion was deployed on the hills surrounding the division CP and artillery positions until the column had progressed to that point where the engineers were withdrawn to load onto their own vehicles to follow the preceding artillery battalions. Colonel Marshall's story is based on facts as seen from certain individuals' eyes; however, mention should be made of those engineers who stayed on the hills and formed the actual rear guard of the withdrawing division.

MAJOR LAWRENCE B. FARNUM
Fort Belvoir, Va.

Infantry & Doughboys

To the Editors:

From time to time I have run across COMBAT FORCES and each time I have read it with great interest.

I am one of those soldiers who lives on his reminiscences and dreams of a distinguished future, but who hates the fate that brings him invariably to the rut of banal jobs. Nothing is more aggravating to me than routines and the petty duties that become tragedies to garrisoned soldiers.

I was a squad leader for the better part of a year, both in training and in combat, and later a scout for intelligence, ending it all by being an interpreter with the Turks on Heartbreak Ridge. So I have been able to feel, the way infantry soldiers feel.

Much has been said and written about the lack of unit pride of infantrymen. It seems to have been thought quite serious for marks of distinction have been added to the infantryman's uniform. I even hear talk of adopting an altogether different uniform.

But the problem is only a garrison one. In combat the infantry only wants to fight.

I think the question goes deeper than uniforms and trappings.

The infantry is an age-old institution which expects big battles and rugged and weary days. In the minds of civilians the infantry is a rampant mass, steadily, clumsily moving over the fields of battle, helpless and the target of all weapons.

Around the infantry but based upon it, are the more conspicuous units: the dashing cavalry, the technical artillery, the imposing armor. But the infantry remains the same old rampant mass, while all these arms overshadow it by their technical improvements, their new achievements. To the people, the infantry becomes outdated, and because of its lack of scientific technicalities, its components are looked upon as people of lower intelligence. How could anyone be proud to be an infantryman?

But should we not find the same signs of disspirit in other armies of the Western World? It would seem so. But the British infantry has high morale.

The reason lies in organization. Each British soldier, in peacetime belongs to a regiment. Each regiment has a personality which its history gives it, a tradition brought down by the old ones in the outfit. And everyone knows the history of that regiment all through the country.

This unit pride or *esprit de corps* is not limited to foreign troops. I am proud to have been in the 14th Infantry, to have been in the Talented Dragons—the 2d Battalion, named after Colonel Talent. Its veterans are proud of their unit and its record. But it is wasted pride, for they seldom go back to it in any great number, and never again find the "personality" they left. The regiments do not live be-

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cause no one brings them to life.

Furthermore, how many civilians know anything about the 2d Infantry or the 5th RCT? Few. But all know about the Marine Corps and its glorious deeds. In Korea, the Marines are the Marines to the public, but the 3d or 7th, or 25th Divisions are United Nations troops. A film about Korea is about Marines in Korea, not the 27th Infantry or the 5th RCT.

People are surprised that the infantry does not try to be a sharp outfit, that the infantryman is disgusted with his lot and does not care to make a good appearance. Why should he try and care when no one else does?

I realize that with the rotation of men from one theater to another and with the drafting of men for two years, we have a nearly continuous change of men in each unit. But the Regular Army men are still in number. Once a soldier gets in an outfit, he should stay in it. However, a man who does not like a unit is a morale destroyer just as a man who does not like a job is not qualified for it. But most men like a good unit, an effective, sharp unit, and a unit with a reputation.

My heart is set on the infantry. To me it is the heart of the armed forces. Whether it be a squad attacking or an army, the basic fundamental principles are the same and no man is greater or a better tactician than a good infantry leader.

Thank you for publishing such an excellent magazine.

CPL. PATRICK M. DE SERCEY
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To the Editors:

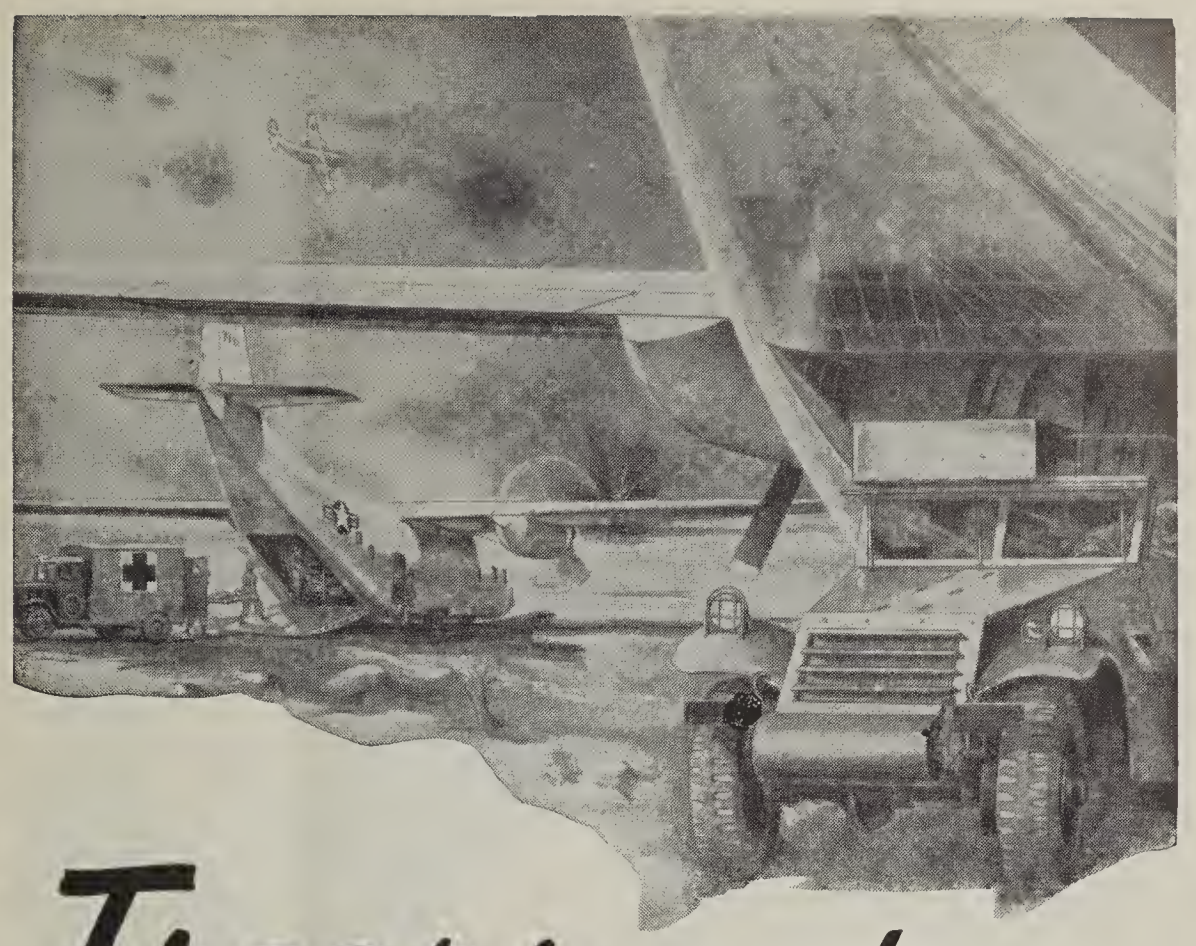
There has been discussion from time to time concerning the origin of the word "doughboy." I have been told that it dates back to the Indian Mutiny, though I have not been able to verify this. I have found the word in connection with the Peninsular Campaign of 1862, used without comment or explanation, which suggests that it was well established then. However, just recently I have come across it in a still earlier Peninsular Campaign. The following is from *The Letters of Private Wheeler* (Houghton Mifflin, Boston, 1952).

Near Vittoria, Spain, June 19, 1813, Private Wheeler wrote:

"In the valley where we are halted there is a good stream and several watermills. We have a chance to grind our corn, my comrade is just come from one of the mills with his haversack full of flour and . . . I shall close my letter and assist Jack in making some dough boys."

This suggests strongly that the term was originally applied to a typical infantry field ration, rather than to the mixture of sweat and dust of other theories.

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A Score Settled...

Sgt. Ronald E. Rosser, U.S. Army
Medal of Honor



WHEN HIS BROTHER was killed in Korea, Sergeant Rosser re-enlisted. Several months later he, too, was in Korea—pinned down on a hill near Pongil-li by surprise Red fire. He saw it cutting up the platoon. Suddenly he jumped to his feet, charged a Red bunker and cleaned it out. In a trench he dispatched five more enemies. Twice, under heavy fire, he returned for more ammunition, then renewed his attack. His furious one-man fight ended with 13 enemy dead, the American platoon saved, and a score settled for Sergeant Ronald Rosser.

"When a man gets back from Korea," says Sergeant Rosser, "it does him good to see people investing in our country's Bonds. Sure, Bonds are a practical way to save, I know. But they also help build *production power*—to equip and protect men overseas. And that's proof that people like you really care."

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• Kipling somewhere wrote that dough boys were dumplings made of flour. And Colonel Colby's *Army Talk* has this to say:

". . . In the British Navy for many years it was used to describe a sort of dumpling. But the question is how this got transferred ashore as a label for foot soldiers. It is said that the buttons on their uniforms looked like these 'doughnuts' or 'dumplings' and so were called doughboys, and the wearers also doughboys after them. Custer in 1867, a cavalryman, declared himself 'not a doughboy.' It is also said that Craufurd's Light Division in the Peninsular War, famous for its marching qualities, once ground its own wheat into flour so much that they christened the place 'Doughboy Hill' and themselves 'Doughboys' and the title stuck. It is also said to come from the word 'dobe' to indicate a certain kind of mud, used to build huts in the West and also difficult to march in, and to have grown up as change from an Infantry nickname of longer tradition 'mud crushers' in places where the mud they crushed when they marched was 'dobe' mud. It is further said that infantrymen who used to clean their white trimmings with a white pipe clay found that the rain made the pipe clay run and look like dough, and hence the epithet 'doughboys.' An old officer whose service began in the 1870s says that although he often heard the term 'mud crushers' used in those days, he never heard 'doughboy' until very recent times. . . . Certain it is that the term was widely popularized without derision, even proudly, and is in general use among all infantrymen."

Journals for Korean Army

To the Editors:

Since receiving your letter of 2 March regarding the COMBAT FORCES JOURNAL and the Association of the United States Army, I have been thinking of various ways in which I might be of some assistance to the Association and the JOURNAL and the principles for which they stand.

I recently returned from a trip to Korea and have the idea that the members of the Association of the U. S. Army and the readers of the JOURNAL might wish to help the Korean Army. I found that Army an active, vital force and a splendid ally of the United States. I shall not comment further on the quality of its soldiers or what they have done so superbly to carry their share of the burden in the Far East, but I shall come straight to the point.

As you know, the Korean Army has patterned itself to a great extent after our system. It has service schools just as we do and, in so far as possible, the schools are conducted according to policies and along the lines on which ours are conducted. During my long service as an engineer officer of our Army, I collected and had bound into volumes *The Military Engineer*. Upon learning that the Engineer School in Korea had no bound

set of *The Military Engineer,* I could think of no better use for my set than to turn it over to the Korean Engineer School.

And now I have gone a step farther. I feel that the Engineer School in Korea should have a current journal that will give it a broad coverage of all military subjects of interest to our Army. The Korean Engineer School does not now have a subscription to the COMBAT FORCES JOURNAL. I believe it is most desirable that there be a copy of the JOURNAL in that library and I am therefore sending in a two-year subscription for the JOURNAL to be sent to the Commandant, Army Engineer School, Republic of Korea, through the Chief of Staff, Korean Army, Republic of Korea, Taegu, Korea.

I am sure all of us realize that, with so many Korean officers learning English, one copy of COMBAT FORCES JOURNAL will not be sufficient for the School, so perhaps some other subscriber who may read this letter may want to pay for a subscription for one of the service schools in Korea. Because the JOURNAL will readily know which service schools in Korea have subscriptions to the JOURNAL, I am sure a better coverage of the Korean Army could be made if anyone who desires to be of assistance would send $5.00 or multiples of $5.00 to the editor and he could see that the JOURNALS were distributed to each of the schools with additional copies in proportion to the strength of the schools.

Thus we can assist the Korean Army by making a small contribution and at the same time help the Association of the United States Army by increasing the circulation of the COMBAT FORCES JOURNAL. I, personally, have made my contribution and I hope the idea will impress others as worthwhile and that your JOURNAL may be able to assist in this good cause.

LT. GEN. DANIEL NOCE
The Inspector General
Washington, D. C.

Maintenance

To the Editors:

As an artilleryman whose experience has spread the gap between 75mm horse drawn guns to 8-inch self-propelled howitzers and who has spent enough time handling vehicle maintenance to rate flaming bombs instead of crossed cannons as collar ornaments, I was much interested in Lieutenant David H. Gilbert's letter in the May issue of the JOURNAL. I don't believe he fully understands the problems of the battalion maintenance officer in regard to expedients to "keep 'em rolling," especially in non-divisional, separate battalions. He has to pull rabbits out of a hat to satisfy a rightly demanding battalion commander, and alibis as to lack of parts get nowhere. Ordnance is usually better equipped as to tools, I grant, but I will not agree as to skill and experience. Just change corps, for example, and see what happens. Your new supporting ordnance may have neither the skill nor experience that your own maintenance section has. In tactical situations, deadlined trucks or prime movers, regardless of cause, are of no value to their using service.

MAJ. FREDERICK W. BECKERT, JR.
216 Montclair Avenue
West View
Pittsburgh 29, Pa.

"Buddy" System

To the Editors:

An article on the training of Rangers, which appeared in one of the many valuable military publications which come our way as the editorial staff of *The British Army Journal,* contained a short account of what was termed "buddy training." I was much struck by the method of training described and it would be interesting to know what was the origin of the method in the United States.

On this side of the Atlantic a light infantryman immediately pointed out that Sir John Moore who was killed at Corunna in the Peninsular War used a somewhat similar method of training at Shorncliffe. It was then termed "comrade training." We find that in fact it may not have been Moore who first suggested "comrades," as will be seen from the following extract from Colonel Manningham's "Regulations for the Rifle Corps" which was produced in 1800:

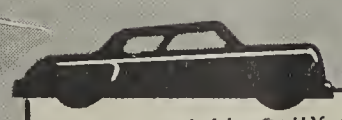
"Having formed his company . . . he [the Captain] will then arrange comrades. Every Corporal, Private and Bugler, will select a comrade of the rank differing from his own, i.e. front and rear rank, and is never to change him without the permission of his Captain. Comrades are always to have the same berth in quarters; and that they may be as little separated as possible, in either barracks or the field, will form the same file on parade, and go on the same duties with arms, when it is with baggage also."

There is no doubt however that Sir John Moore, of whom Napoleon said, "Moore is the only General now fit to contend with me: I shall advance against him in person!" and whom the British Army regards as one of the greatest of trainers and leaders in the field, appreciated the value of "buddy training" and made full use of it.

LT. COL. R. C. HUTT
The War Office
London, S.W. 1, England.

● There was a voluntary and widespread use of the system in the AEF of the first World War and U.S. use of it may have started there. We appreciate Colonel Hutt's comments and enlightening bit of historical lore.

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FRONT AND CENTER

FOR THE RECORD: THE 280 GUN FIRES AN ATOMIC PROJECTILE FOR THE FIRST TIME

The now familiar, but always foreboding, mushroom cloud begins to form after the explosion of the first atomic projectile fired from a gun. The cover photograph shows the completed mushroom in all its awesome glory.



The Place: The Atomic Energy Commission's Proving Grounds on Frenchman Flats, north of Las Vegas, Nevada.

The Time: Early on the morning of 25 May 1953.

The Weapon: The 280mm gun, the world's largest artillery piece, weighing some 85 tons and having a range of 20 or more miles.

The Outfit: Battery A, 867th Field Artillery Battalion, commanded by Captain Richard A. Erickson. The 867th, commanded by Lieutenant Colonel George T. Stump, is a battalion assigned to the 52d Field Artillery Group, commanded by Colonel DeVere P. Armstrong.

What Happened: A nine-man gun crew under the direction of Captain Erickson first fired several ranging rounds of conventional shells from the gun. Then it loaded the shell armed with an atomic warhead and retired to nearby foxholes. Some twenty seconds later technicians set off the shell by remote control.

Propelled by conventional explosives the shell screamed through the air some seven miles of distance and some 500 feet of height when the time fuze caused the fission of the materials in the warhead and the resulting atomic explosion.

Credit Lines: Many men, in uniform and out, whose names are unknown, deserve credit for the imagination and the resourcefulness they used in pushing the 280 gun through to completion. Not the least of those whose names are known is General J. Lawton Collins, the Army Chief of Staff. General Collins was present when the first shot was fired and after his return to Washington he wrote letters of appreciation to these officers for their work in making the first atomic shoot a success.

To Major General E. L. Ford, Chief of Ordnance, for the work of the Ordnance Corps and the close relationship it developed between industry and the Atomic Energy Commission.

To Major General Arthur McK. Harper, Commanding General, The Artillery School, for the "great contributions of the Artillery School in this history-making event." In this letter

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General Collins mentioned by name these officers from The Artillery School: Colonel Berton E. Spivy, Jr., Major R. G. Marriott, Major Joseph B. Dunn, and Major W. K. White of the Marine Corps.

To Colonel Spivy himself; to General Lemuel C. Shepherd, Jr., Commandant, U. S. Marine Corps, in appreciation of the work of Major White; and to Colonel Armstrong, Lieutenant Colonel Stump, and Captain Erickson.

Who Saw It: Secretary of Defense Charles Wilson, Secretary of the Army Robert T. Stevens, Admiral Arthur W. Radford, Chairman-designate of the Joint Chiefs of Staff, General Collins, 100 members of Congress, Atomic Energy officials and 2,500 soldiers, sailors, airmen and marines.

What it Means: perhaps the most significant immediate outcome of the test was the announcement later in the week of the test that several of the 280 guns are to be sent to Europe to bulwark the NATO forces.

The movement of the gun from the testing stage into tactical use increases the Army's fire power enormously. It also poses the problem of adjusting tactics and methods to this added fire power. Adjustments will be Army-wide —from the front-line infantry and armor back through the close support arms and the logistical services.

Significantly no arm or service has been rendered useless by the new artillery. The "absolute weapon" of 1945-46, as powerful and foreboding as ever, had become a manageable weapon in 1953.

THE NEW DEFENSE TEAM PUTS ITS NEW HARNESS TO ITS FIRST BIG TEST

PRESIDENT EISENHOWER'S reorganization of the Department of Defense will give the Secretary of Defense far more power than he has yet had and also gives him six more assistant secretaries (for a total of 11) to wield it. It also gives him a Chairman of the Joint Chiefs of Staff who will have greater say-so about the personnel and activities of the Joint Staff, and also far greater influence on the three services than the Chairman has heretofore had. The JCS itself remains an advisory group with its members (other than the Chairman) no longer jointly directing the activities of the Joint Staff or issuing directives.

This concentration of power in the hands of the Secretary of Defense follows the trend that began in 1947 and proceeded through the reorganization of 1949. The first unification law depended strongly on "cooperation" and "coordination." Mr. Forrestal, the first Secretary of Defense, had a small office with three "special assistants." An early opponent of the principle of unification, Mr. Forrestal moved slowly, but before two years had passed he conceded that unification could not work unless the Secretary had more power and more assistants. The reorganization of 1949 partly provided for this, establishing the offices of Deputy Secretary and Chairman of the JCS.

Thus power has gravitated to the top, where the responsibility has always been. The trend is a lesson in the futility and inefficiency of halfway methods.

There have been cries from Capitol Hill and from David Lawrence (who has fought unification from the very beginning) and former Air Secretary Finletter that the President's reorganization plan will "Prussianize" the Department. These alarmists cry that the Chairman of the JCS is becoming a Chief of Staff of the Armed Services. There is this to be said for their view: the Secretary of Defense under the reorganization can, if he wishes, delegate enough power to the Chairman of the JCS to indeed make him a Chief of Staff in all but name. But the cry of "Prussianism" is a smear-word and therefore false; it reveals most of all that the critics don't know much about the Prussian system. In its classic form the Prussian General Staff was independent of the War Minister and responsible only to the German Emperor. But General Eisenhower's reorganization puts the power in the hands of the war minister—the Secretary of Defense —who, though he delegates it to the Chairman of the JCS, is still responsible under the law. And the Chairman with all his increased stature remains subordinate to the Secretary of Defense and to the President through the Secretary.

Civilian control is thus assured, although it can be lost through default. Mr. Robert Lovett's experience is rewarding here. In his letter of recommendations to Mr. Truman, written before he left office, the former Secretary of Defense time after time described how this or that agency or department in the military establishment had raised

(Continued on page 38)

A practice shoot with a non-atomic shell on Frenchman Flats. The projectile (in circle) is shown in flight. This photo was made several days before the first atomic projectile was fired.



The Red Flood



HERBERT ROSINSKI

As the story of the Red Army's slaughter in Eastern Germany of 1945 has gradually come to be known, the reaction of some has been to brush it aside as a suitable revenge upon Germany for her own cold and systematic mass murders of millions. Certainly, there can never be an excuse for these ruthless actions. But the world should likewise face the facts of the equal and greater capacity of the Red Army for unleashed and completely stupid savagery. In the onslaught Dr. Rosinski discusses, the Soviet soldiers brought death and serious harm to actually millions of civilians. By wanton, useless destruction, they did enormous damage to property throughout the vast area which they overran. Genghis Khan would not have wrought such devastation in a lifetime.

TO the peoples of the West the war in the East, on the Russian front, has to this day remained largely unknown. We know something of its broadest outlines, its dramatic turning points before Moscow and Stalingrad. But of a conflict so vast we should know much more--the peoples who waged and suffered it, the

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terrain over which it raged, the merciless fierceness of enemy and climate, and the great devastation.

The fury of that final Red assault, with pillage and destruction of life like nothing else the world has seen, almost annihilated its own record, smashing organized recollection and scattering the survivors. Only gradually has the story come to light, and only recently has a young German historian, Juergen Thorwald, made the first bold attempt to reconstruct it. To his books, *It Began at the Wesel* and *The End at the Elbe,* published in Germany, the following account is indebted; also, in lesser part to General Heinz Guderian's *Memoirs of a Soldier,* and other sources. [The two Thorwald books have been combined and published in a somewhat condensed form in the United States as *Social Order and the Risks of War,* by Juergen Thorwald, George W. Stewart, Publisher, Inc., New York, 1951. Guderian's work is *Errinerungen eines Soldaten,* Heidelberg, 1951.—The Editors.]

AT the beginning of 1945 the German Eastern Front still stood on the lines where, the previous autumn, it had brought the Russian drives to a standstill. Here were over three-fifths of the German forces. The smaller part under General Friesner and Field Marshal Weichs was south of the Carpathians, trying, with the Hungarian remnants, to stem the Red drive on Budapest and western Hungary because of the oil wells there, the last ones Hitler had. The greater bulk of the armies, some eighty divisions, was strung out thinly from the northern slopes of the Carpathians, along the Vistula and Narev, to the eastern border of East Prussia, thence along the Niemen to the Baltic. By utmost effort Guderian, now commanding the Eastern Front as acting Chief of the General Staff, had pulled twelve armored and motorized divisions out of the front line and brought them up to an average of eighty tanks—a reserve far too small, but Hitler would give him no more.

Hitler's always difficult personality had undergone a terrifying deterioration since the attempt on his life. His wounds had healed, but the old, slow paralysis of his left side had grown much worse. His left foot dragged, his left hand trembled so that he had to control it with his right hand. His stoop was worse and he would fall into his chair as if bereft of all energy. He had suddenly grown old. His past stubbornness now became sheer senile obstinacy, his toughness deliberate cruelty. And he no longer believed any man. The self-control which had given those around him the feeling he would finally master his fate now broke down. His language grew still coarser. Conferences degenerated into hopeless, exhausting struggles to make him listen to any reason.

The whole of his distrust was concentrated against his officers whom he suspected of cowardice if not of treason, and whom he had come to hate with an intensity to which he gave free vent. In the midst of the great Russian breakthrough a message from the commandant of Warsaw, long by-passed and now of no strategic significance, that he intended to break out toward the German lines, led to the abrupt arrest of three key officers of the General Staff who had merely handled the message in the course of their duties. Guderian had to submit to hours and hours of searching questioning at the hands of Himmler's most fanatical agents and reconstitute his working staff at the height of the strategic crisis.



The Red Flood rolls into Breslau on steel tracks carrying 152mm guns.

The ancient city of Königsberg on the Baltic and Breslau on the Oder caught the full fury of the Red tide. This is Königsberg's harbor and stock exchange.



THE conflict was made worse by the provincial Nazi heads, the *Gauleiters.* In the autumn Hitler had entrusted them, and not the military district commanders, with organizing the defenses and mobilizing the remaining manpower in a *levee en masse,* the Volkssturm. Most of the *Gauleiters* seized this opportunity to enhance their own power and often refused to accept military advice. Both in East Prussia and Silesia, the fortifications built by tremendous ef-

fort of the whole population were wellnigh worthless. The jurisdiction of the *Gauleiters* extended right up to the combat zone. In some places the heavy batteries actually stood on *Gauleiters'* territory.

Then also, Hitler had taken most of the newly made units and reserve and thrown them into his desperate effort in the West. He promised Guderian reinforcements once that operation was completed. But he clung to the Ardennes offensive long after its failure was clear. And even the four divisions he finally released he used, not to strengthen the main northern front, but Hungary where they were promptly wasted.

Nor would Hitler bring home the twenty-six divisions of Army Group North, cut off in the northernmost tip of Courland and useless there. Hitler kept on denying that the Russians had the strength left for a general offensive, but insisted that these divisions were tying up vastly superior enemy units, and that he would need them for a deep thrust into the Russian flank as soon as he could return to the offensive. Even the suggestion of preparing a second line, some twenty miles behind the front, on which the troops could effect an elastic withdrawal before the first fury of the Russian attack, he abruptly turned down without even the courtesy of discussion.

UPON the overextended, undermanned front broke no less than four army groups under the over-all command of Marshal Zhukov, between 12 and 14 January. From the bridgehead of Baranov a colossal artillery concentration pulverized the German lines in half a day. Through the big gap Marshal Konev's masses poured, his armored groups rolling on deep into the German rear but finally meeting resistance from two Panzer corps.

Zhukov broke across the Vistula two days later and tore the German Ninth Army to shreds. In eight days his armored spearheads had reached Posen, taken three days later. In another week they stood at the Oder-Warthe bend, which Stalin had not hoped to reach for two and a half months, and took the strong fortifications next day.

Meanwhile a third army group under Rokossovsky, breaking through from the Narev to the west and then turning northward up the valley of the Vistula, threatened to cut off the great bastion of East Prussia. And a fourth group under Chernyakovsky was breaking into it from the east along the Pregal against the grimly resisting remnants of the Third Panzer Army. Caught between these two, the commander of the Fourth Army, General Hossbach, decided that to stay in his positions in central East Prussia meant rapid annihilation. He, therefore, came to the bold decision to turn his forces around and try to cut his way through Rokossovsky's spearheads to the west, and thus secure a corridor through which the civilian population might escape. His immediate superior, General Reinhardt, agreed, and both generals tried to conceal the purpose of the new move as long as possible from Hitler, for they knew he would never tolerate any evacuation of the province.

On the evening of 26 January the 131st and 170th Infantry Divisions, after a march of 120 miles through intense snowstorms, began their attack across the moonlit snowfields. Rokossovsky promptly built up increasing resistance. Yet the 170th Division fought its way through snowstorms across the deep-cut, ice-covered banks of the Passarge and for a brief moment in the night of the 29th joined hands with units of the Second Army. But in these same hours, Hitler, who had heard about it, had relieved Hossbach from his command and ordered the attack to be stopped. In a few days the Fourth Army, cut off in the west, was separated also from Königsberg by another Russian thrust against its eastern flank. Forming a deep sack with its rear to the frozen lagoon of the Frische Haffe, it managed to keep resisting under a new commander for nearly two more months. But in the last week of March the remnants were evacuated, hardly 5,000 troops, half of them wounded, and some 3,300 Russian and other "supporters."

WITH all German fronts now breaking or retreating, the fighting concentrated around a few strongpoints. Königsberg, Graudenz and Thorn on the Vistula and Posen and Breslau were the most important of these. None was a stout fortress in the modern sense and the garrisons were a motley collection—Volkssturm units, ground crews of the Luftwaffe, training school groups, remnants of regular forces. The large civilian populations proved a heavy burden.

As the old fortifications fell the battle raged on through the cities. The Russian tactics of capturing the corners of blocks, then fighting their way to the inside were met by burning these corner buildings out.

The full fury of the struggle developed at Königsberg and Breslau. The position of Königsberg on the Frische Haffe made possible evacuation and support from the sea. Before the Red forces had encircled the city, a large part of the population and the refugees who had streamed into the city from the countryside were able to make their escape, by boat or on foot, to the little outer port of Pillau on the Baltic. When the Rus-

In the days before Hitler's madness unleashed the Red Flood, peasants came to Breslau to market and to "Heil" the man who was, he boasted, creating a "thousand-year Reich."



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Beyond Königsberg lay the Autobahn running westward to Elbing—an inviting track beckoning to Berlin.

sians cut off that line on 31 January, less than half of the 730,000 population were caught.

But divisions of the Third Panzer Army, thrown by defeat into the city, were reconstituted into effective forces by the commandant, General Lasch. Three weeks after the city was surrounded he broke the Russian ring again by a combined thrust of the Fifth Panzer Division out of Königsberg and two infantry divisions from Pillau, supported by some naval fire from the Haffe. The effort reopened the way to Pillau. For three weeks the old city had a last spell of life. In the mild unusual weather the bushes burgeoned and violets came up among the ruins. Shops were reopened and public utilities restored. But on 6 April the Russians again overran the front, cut Königsberg off again, shelled and bombed it for more than thirty hours. An attack mainly from the south then thrust rapidly into the outskirts. On the 10th Lasch surrendered. The forces around Pillau held out under constant Red air attacks for two weeks longer, and this ensured the transfer of the mass of refugees and wounded to the Nehrung, the narrow spit of sand dunes, covered with grass and firs, which separated the Haffe from the Baltic.

IN Breslau the defense centered around the airport. After a last-minute evacuation of three-fourths of the population, some 250,000 still remained, with the garrison of 30,000 badly organized regular soldiers and 15,000 Volkssturm. Planes could only use the airport at night and military planes not at all. Many of the containers of ammunition dropped to the garrison were lost.

Toward the end of February it was even possible to fly in a battalion of parachùtists. Everyone in the city, from the age of ten up, worked under constant artillery and air attacks to level a number of city blocks and convert them into an emergency airstrip. Gauleiter Hanke also had whole streets razed to create a no-man's land. Finally in the first days of May, the women of the city started to rebel and with the principal clergy persuaded the commander to capitulate. Hanke escaped in disguise and disappeared.

Perhaps the greatest mistake of the different *Gauleiters* had been to clutch so desperately at Hitler's assurances. With few exceptions they left their populations unwarned and made no plans for their evacuation, or at best, plans that were insufficient. In most of the border districts the people were caught before they had any inkling the fronts had broken.

THE Russians, excited by four years of war and the bloodthirsty propaganda of Ehrenberg and his like, and drunk with victory and captured liquor, now let out their fury in scenes of horror to which there were millions of witnesses. Wherever a city surrendered, soldiers and civilians alike were overwhelmed by the wave of pillage, mutilation, murder and rape that came down upon them.

The loss of valuables, or what looked like them, the devastation, with Red soldiers destroying what they couldn't carry away, were nothing compared to the shooting and hanging and burning alive of men of the Volkssturm, the shooting of wounded or searing them to death with flamethrowers, the crucifixion of women alive to the doors of barns. The



Ancient Posen in the corridor between East Prussia and Germany was swept up in the Red Flood, although many of its inhabitants escaped beyond the Oder.

wave of rapings was no longer merely the expression of individual lust, but a mass process with orgies of sadism staged before the eyes of fathers, husbands and sons, sparing none and going on and on for weeks and months. All who survived, men and women still capable of heavy labor, were herded together to be driven to Russian prison camps. Others, the sick and probably more fortunate, were made to work endless hours in all weather breaking stones, building airstrips, repairing roads, threshing corn. Worn-out and starving, the children and the old quickly succumbed, to find surcease in shallow graves.

Those who got away proved to be little better off. Throughout the eastern marches of Germany, masses of fugitives, the old, the women and children, the French prisoners of war who had been working on farms, streamed toward the west. There were millions of them—human agglomerations, sometimes on foot, more generally in horse-drawn carts, with as many as 30,000 in a single group. Large numbers disappeared without a trace in the swirling snowstorms which now swept the countryside. Russian tanks loomed upon them from blizzards and annihilated whole convoys in minutes of time. Red planes attacked them from the air and some were caught in the firing between the lines. Those who survived dragged from village to village leaving a great toll of death.

WHETHER they escaped or not and how they escaped was less a result of organization than of accident, above all of geographical location. Thus out of the Warthegau around Posen most fugitives from the inner zones got beyond the Oder. The same was true in Lower Silesia. But Upper Silesia fared far worse. Along the Baltic, West Prussia, hard hit by Rokossovsky, did succeed in extricating a large number. East Prussia, easternmost of all, almost cut off by Rokossovsky's drive and condemned by Koch's obstinacy, suffered most of all. From the Vistula region and the eastern border, few got through. The fugitives massed in the center, for whom Hossbach had sought in vain to open a way, were pressed against the Frische Haffe along with the Fourth Army. Engineers staked out a way across the five miles of ice. Many carts broke through and the Russian planes took a heavy toll, but most of the fugitives, by keeping fifty yards apart, got across to the Nehrung, to mingle there with the other stream of refugees coming down from Königsberg and Pillau. That narrow spit where a few thousand fishermen lived and in summer a few thousand vacationists more, was the only land route open to the west. And some two million people inched their way along it in these weeks.

Down the single road they moved, or through the sand dunes, forced again and again to stop under artillery fire. And it took fourteen days from the center of the Nehrung where the refugees from the Fourth Army area reached it across the Haffe to reach Danzig at its foot. There was no food and no water but melted snow. Danzig, most beautiful of the cities of eastern Germany, its 750,000 swollen to seven million by refugees from every direction, its quaint old streets jammed full of escaping masses, was but a stopover on the weary road through Pomerania or the dangerous evacuation across the Baltic

The German Navy had evacuated wounded and fugitives from Pillau and Gotenhafen (Golynia) and the peninsula west of Danzig. In Gotenhafen a young lieutenant commander who happened to be there had the imagination to see what was needed and do it until a fortnight later his Admiral arrived. As Gotenhafen became more and more intolerable under Russian air attacks and artillery fire, the Hel peninsula became the center of the rescue work. In all close to two million refugees were car-

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ried across the icy Baltic to the ports of Lübeck and Kiel, and when these became practically unapproachable because of British aerial mining, to the ports of North Schleswig and Denmark.

But by now the German Navy was almost at the end of its resources. It could only give the transports a most inadequate protection against the increasingly bold attacks of Russian submarines. On the night of 30 January the *Wilhelm Gustloff,* with 5,000 refugees and a number of naval personnel, was hit and sank in an hour. Only 950 escaped. On 10 February the *General Steuben,* carrying 2,000 wounded and 1,000 fugitives, was lost with nearly all on board. On 16 April the *Goya,* with 7,000 refugees and soldiers, sank so fast that only 170 could be saved.

WHILE the floods of fugitives were thus streaming to the west over snowbound roads or icy waters, Zhukov's onrush had temporarily come to a halt at the middle Oder. Guderian still hoped to stop him there by converging attacks against his flanks from Silesia and Pomerania. But once again, Hitler's perverse obstinacy brought his plans to naught. Guderian's plea for the transfer of forces to Pomerania was rejected. The bulk of the Sixth Panzer Army which had become free in the west was committed to yet another abortive counterattack in Hungary and only a remnant to the defense of the Oder front. The attack from Silesia had to be given up and that from Pomerania much reduced. The latter soon petered out.

A few days later Zhukov, in his turn, attacked along the Pomeranian front, rapidly broke it up and drove his armored spearheads to the lower Oder and the Baltic coast. By 7 March the land route to west had been cut off. The mass of the population, caught again by surprise in their homes or overrun on the flight, fell into Russian hands. In Kolberg some 3,000 troops held out for another fortnight, enabling the 70,000 civilians to flee across the sea. Shortly thereafter the ring of positions held around the Bay of Danzig fell under Rokossovsky's renewed attack. Danzig itself was evacuated on 27 March and completely burned down by Russians and Poles in the fury of the occupation, Gotenhafen-Golynia was abandoned on 31 March. Only in a small strip east of Danzig and on the peninsula of Hel did the remaining forces and numberless civilians continue to maintain themselves for the month and more until the general capitulation of all German forces.

Many changes came before then as Hitler sought to bring reality to such fantastic plans as those for the relief of Berlin, which the Allies occupied between 2 and 4 May. Then with Hitler dead and Admiral Doenitz in supreme command, all efforts were devoted to the single task of saving as many as possible of the civilian population and the remaining military forces from falling into Russian hands. Doenitz tried to obtain a general capitulation to the Western powers only. But this could not be accepted in view of the clear directives on this point. But the commanders in East Germany did succeed in bringing their forces into the haven of Western captivity and with them at least a part, though far from the mass, of the millions of civilian fugitives.

The Red Flood swept into Austria and stayed as an Army of Occupation. And many of its men were astounded at what they saw of Western civilization.



THE Russian flood came to its final halt at the Elbe. In three and a half months it had overrun western Poland and the eastern half of Germany. It had struck between twelve and fourteen million Germans in Eastern Germany and as many again in its last assault between the Oder and the Elbe, including some four million in Berlin alone. No historian will ever be able to count the numbers who perished before the onslaught. From gunshot, artillery and bombs—from murder and rape, snow and cold, and sheer starvation, the estimates for civilians alone run from 1,500,000 to 3,500,000. This was several times the number that perished in Germany as the result of air raids during the entire war. And the extremely fierce fighting accounted for, in addition, a considerable part of the 2,200,000 German soldiers killed and an even larger part of the 1,200,000 missing or unaccounted for.

The territories over which the Red forces swept were left a no-man's land. Marauding bands of German and Russian deserters fought a merciless struggle there for whatever scraps of food were left to find. The Red Army, basing its supply on the Baltic, did not care to make the effort needed to subdue them and the new Polish government was far too weak to do so. The first group of 100,000 Polish settlers sent there disappeared almost without a trace. And months after the war was over communications between Berlin and Warsaw had still to be maintained by armored convoy once a week which found conditions beyond the Oder resembling the American West at its wildest. Only gradually were the Warsaw authorities able to bring the land under some control.

KEEP OUR GUARD UP

AS this issue goes to press the prospects of a truce in Korea seem brighter than at any time since the endless talks began almost two years ago. If a truce comes about, and the men in the front lines move back the mile or two that the agreement calls for, problems of unimaginable complexity will begin to plague the men manning the combat outposts, and the men supporting them all the way back to the Pentagon and to the posts in the United States where soldiers are in training and in school.

Men will no longer die or suffer wounds—and for that every soldier will be thankful. But otherwise a period of truce and uneasy peace could last for many years and create many new problems.

In the lines and outposts soldiers will be hard pressed to find meaning and incentive in endless days of watching and waiting. The absence of age-old battle practices—patrols, for example—will create problems that few front-line leaders have ever imagined or experienced.

Immediately behind the battle lines the artillery, firing not at all after firing more than any other artillery in all history, will have to find meaning and purpose in endless days of remaining alert and prepared to fire on targets that it has ranged in on and pin-pointed over and over again.

Engineers will find themselves busy improving roads that were vastly improved already over what they had been when the Army came in. The Signal Corps will string new lines and repair old. The Medics will find they have more time to practice preventive medicine and to heal the sick and indisposed rather than concentrating on the grim task of saving the lives of men whose flesh and bone were torn and broken by lethal agents.

And in the logistical commands the burden of keeping the fighting army clothed, fed and munitioned may see a falling off in tonnages that must be delivered but not a falling off of the need to keep the stuff rolling.

And in Japan and back in the United States the problems will be no less complex.

For almost three years the Army, as General Collins has often said, "has had to fight a war in peacetime." But the complications and demands of an extended period of truce will be every bit as unprecedented and difficult.

The basic trainee at Fort Dix or Fort Ord, knowing well that in a few months he might be a rifleman in Korea, has had sound and selfish personal reasons for listening and learning from the sergeants and lieutenants and captains who were teaching him. But now, unless he can be given a spark that will incite fires of ambition or interest, the training may seem of little importance to him. *"I'll do my twenty-four months because I have to, but I don't want to be a soldier and they'll never make one of me,"*—how do you appeal to that kind of spirit?

NO greater challenge has ever faced a nation than will face our powerful nation if the period of truce and uncertainty is a long one. It will be a time full of hidden dangers, a booby-trapped existence in which a mistake, whether by the highly-placed or the lowly-situated, might change the course of history. Our nation's history.

If now there should arise again an irresponsible cry of "bring the boys back home"—though this seems today unlikely—the damage would be incalculable.

If now there should be heard an irresponsible cry that the taxpayer's burden must be cut by cutting the Army, the Navy, the Air Force more and yet more, the damage could be beyond calculation.

Our commanders, high and low, must give the guidance and encouragement the soldiers in the field will need to create and maintain the spirit and incentives an Army must have. The high command's responsibilities are immense and complex and beyond all reason. It must stand firm and speak clearly against the uninformed and the intolerant, as well as the disloyal, who will want to destroy the Army. It must persuade Congress of the wisdom of maintaining a sound and progressive Army and spell out to Congress the essential programs that will achieve this aim. And it must be wisely sympathetic and understanding of the problems of all leaders and the led in the field. While giving guidance and counsel it must also give enough slack in the reins to permit the exercise of incentive and the freedom of disciplined will that professional soldiers must have, if they are to develop in their knowledge and skill and be content with their assigned duty no matter how disagreeable or arduous.

Out of necessity and national policy many young officers are serving involuntarily and the problems of inspiring them with the desire to serve usefully and with credit to themselves and the United States Army will tax the qualities of leadership of every professional officer and noncommissioned officer. And the same applies, of course, to the enlisted draftees.

A TRUCE in Korea makes sense, given the political situation that exists in the world, but it would be a very foolish man who would treat it as a war that is ended. The facts are clear: the truce does not draw a single fang from the Communist enemy, but indeed leaves him stronger and more dangerous. The lesson of 1946-50 is clear, too, and we hope, unforgettable: let down our guard and there will be another Korea or another world war.



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LOOK TO demography, CAPTAIN JONES

LIEUTENANT COLONEL NORMAN LOCKSLEY

DEMOGRAPHERS are human beings who spend their time adding up all the weird and wonderful, staid and stultifying facts about other human beings.

Many big corporations pay considerable money to professional demographers. And the trends they figure out influence many hard-headed executives in making dollars-and-cents decisions.

We Army folks might get a tip or two from these population research folks—tips that would be handy to Captain Jones in figuring out why some of his problems exist—even if he can't do much about them himself.

When the census takers call

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Do you know why more brides are being kissed than ever before? And babies born? Why more people are here to stay much longer?

the roll every ten years, the answers they get have a definite impact on Captain Jones of Company K.

"How come," says Captain Jones, "that with a booming population, the Army is having trouble getting enough riflemen? Where are all the men of military age?"

"Because," points out Peter F. Drucker, a well-known management consultant, "the total number of young folks reaching working and fighting age will be significantly lower the next few years than during World War II."

Age distribution—discussed in more detail later—is just one of the many factors that demographers grapple with.

Just about all of our soldiers in Korea today—and in Germany, Alaska, or Grand Rapids—were totaled up in the censuses of 1920, 1930, 1940 and 1950. And the results have been analyzed to a fare-thee-well. When you put these figures on the back burner and let them simmer a while, they boil down to:

(1) Our population patterns are changing—rapidly. More than 100 divisions of boy babies were born in the U. S. in 1951.

(2) These changing patterns affect *how* we fight—because they are wrapped up with those *who* do the fighting.

To keep track of these population shifts, Captain Jones will find his dope shaping up into two handy categories—changes in *size* of the population and changes in *quality* of the population.

Size: People Are Here to Stay

There are a lot more people around.

Go to a bathing beach, football stadium, prize fight or resort hotel on a weekend. It's like walking into a sardine can and pulling the lid down tight. Wherever you go, the crowds are a lot larger than they used to be.

Here are a few statistics* that show why:

Year	*U. S. Population*
1920	105,710,620
1930	122,775,046
1940	131,669,275
1953 (estimated)	158,000,000
1960 (estimated)	162,000,000 to 180,000,000

These millions are given an assist by many of us in the Army. A 1948 survey of Army officers shows:

85 per cent are married, and average two dependents each.

As a group, Army people are filling a lot more baby carriages than hearses.

By the year 2000, an old estimate of a U. S. population of 200,000,000 will be quite low; 300,000,000 is a closer guess.

Whatever the final result in millions, it's a cinch there'll be a lot of people around to celebrate the coming of A.D. 2000. People are here to stay.

Leaving the year 2000 to the future where it belongs, let's take a look at how the increase in size of U. S. population concerns Captain Jones.

What effect does our expanding population have at the company level?

As Captain Jones has already noticed, the pressure will probably continue in regard to housing in most places. So it looks as though the question, "How's housing around here?" will be heard in the orderly rooms for a long, long time. More people need more of everything—houses, diapers, automobiles, and seats on the 50-yard line.

As a sidelight, in locating spots for the establishment of new military posts, one point to be considered is the housing situation in that particular neighborhood. Believe it or not, there are still a few sections in the United States which are not congested—where you can find a place to live without putting your right arm in hock. Unfortunately, most of these retreats are not around military installations. *C'est la vie.*

Captain Jones will find (if he lives in a civilian community as many of our Army people do) that local taxes grow bigger and bigger. Schools, roads, hospitals, sewers, and all the other utilities required for an expanding population come with built-in price tags.

Trend: More pressure on the billfold in the form of higher local taxes.



"So I told the first sergeant: 'My analysis of your personality leads me to believe that you are basically a decidedly antagonistic, aggressive libido, with overtones of a sadistic and obsessive-compulsive neurosis.'"

More Blushing Brides

Even more far-reaching than "size-effects" of the population, as far as Captain Jones and his company are concerned, will be the changes in its quality. In the shape of such matters as age distribution, education, and marriage.

These changes in quality are actually far more important than changes in quantity in terms of day-to-day military impact. Why? Well, suppose the total population increases by 10,000,000. Then, suppose the increase was all female. Or imagine that nobody learned auto-mechanics for a few years—we'd soon have 12 million bookkeepers, and only 20,000 mechanics.

From the manpower angle, then, the *way the changes are distributed* rates out attention even more than the answer to "how many people?"

Take the subject of marriage—always an interesting topic of conversation. You have probably noticed that the number of married soldiers gets larger every year. (This qualifies as the understatement of the year, any year since 1945 or so.) This is right in line with the trend of the population in general.

From 1940 to 1950 more blushing brides were kissed in the U. S. than in any decade before—19,000,000 of them, in round (and well-rounded) figures. There are 24 per cent more married couples now than in 1940.

Also—and you have probably noticed this—the average age is lower when hitched. To the tune of: 68 per cent of all Americans over fourteen are married.

It's not too long ago that the percentage of married soldiers was relatively low. So low that back in the early 1930s a well-known officer, then a dashing Cavalry lieutenant, took command of a troop down on the Mexican border. He asked the outgoing troop commander about his men. He said, "Oh, they're all a damned good bunch; well trained; know their stuff; generally a fine group of soldiers." He paused briefly. "I ought to tell you, though. I've got one

*These statistics, as well as those following, come from such unimpeachable sources as the U. S. Census Bureau and my wife's cousin Elmer.

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noncom who seems to do all right, but I don't trust him. He'll bear watching—he's married."

For the company commander—the outlook promises continued interest in honeymoon leaves and allotments. And fewer still of those bachelor soldiers who stayed single for their thirty years.

Age distribution, as mentioned before, is another way in which the composition of the population affects the company. About age—no need to tell Captain Jones that during the 1950s we are running into a shortage of young people. This is especially rough because right now is the time Captain Jones wants to get bright young men on the firing line.

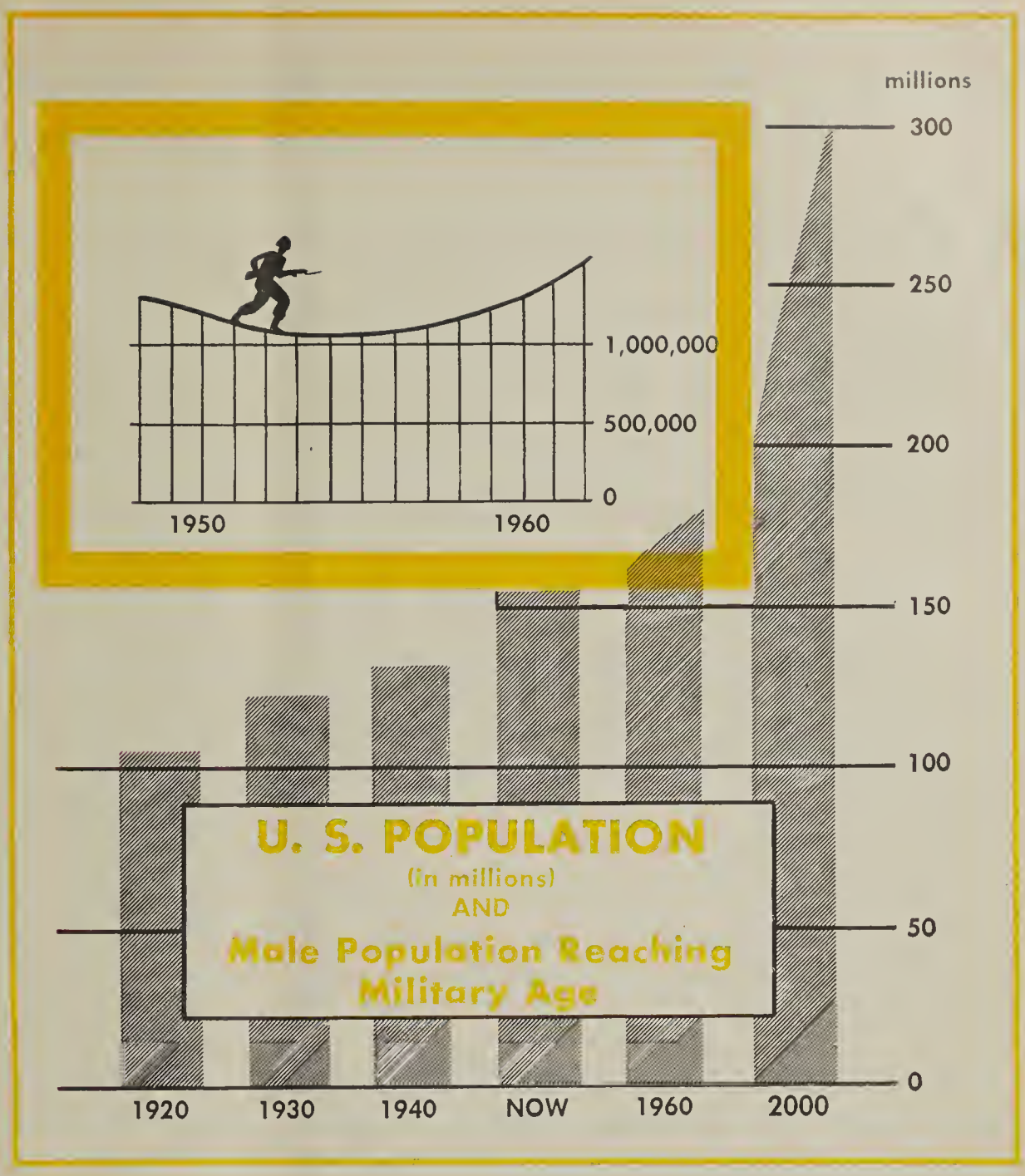
Here's the story back of the manpower pinch. During the depression the birth rate dropped drastically. (Those were the days when we sang, "I Can't Give You Anything But Love, Baby.")

Up to 1951, about 1,200,000 men a year became 18½ years old.

This declined somewhat in 1951.

In 1952, the number of men who turned 18½ receded to 1,041,000, a low mark.

And the old rate won't be regained until 1958 or 1959—when the 1940 crop begins to shave and register with draft boards.



And Bouncing Babies

The population experts find it hard to predict some trends. They involve figuring ahead of time how the curve on the graph will behave sometime in the future; and the G2 crystal ball has not been perfected well enough to make exact predictions. People just won't meet and mate by slide rule.

But the change in the *age* setup of our population in the future is not merely an educated guess—everybody who is going to be old enough to join the armed forces in ten or fifteen years has already been born. Here is a significant trend in age distribution.

When the big crop of 1940-50 babies meet and mate in the 1960s you can anticipate a really BIG increase in babies from about 1965 on.

And as these lusty infants grow to manhood, there will *also* be a steady increase in the percentage of older people compared to the number of people of working age. It shapes up thisaway:

Number of adult workers for every person 65 or over

1850	11
1900	9
1920	8
1930	7
1940	6
1950	5
1960 (predicted)	4

Trend: The number of oldsters in the general population is constantly rising. You have a better chance of being a grandparent than ever before in history.

ANOTHER quality change in the population has been picked up by the research lads. The general educational level is going up. For example, just the other day one of our company commanders received some scientific and professional enlisted men to hold for a while pending further processing. When the duty roster was posted, a slender bespectacled young soldier asked for permission to see the company commander. He reported in and said, "Sir, I find I am listed to be a latrine orderly. I'm a PhD and I have no experience as a latrine orderly. There must be some mistake." The company commander oriented his scholarly recruit briefly, succinctly, and wound up his little oration by saying, "And not only do I expect you to take your duty like any other soldier, but when I inspect the latrines, I expect to see not merely an ordinary latrine orderly job but a PhD latrine orderly job!"

You probably won't meet many rifle platoons composed exclusively of nuclear physicists, but the chances are that you will run into more scholarly soldiers.

The trend goes this way; from 1890 to 1940—

The number of children of high school age increased 82 per cent.

But the number of children in high school increased 1888 per cent.

This same wave rolled on into college.

In 1900—the "general labor market" (anybody who works for a living)—was mostly composed of persons who had grade-school education. In 1940 they had a high school education. By 1955-1960 the "general labor market" will include 9½ million college educated persons.

The use of intricate weapons and newer modes of warfare will surely require more soldiers with technical learning. So at least Captain Jones will have a chance to get more warm bodies—or a higher percentage of them—equipped

(Continued on page 33)

HOW THE COMMUNISTS "WASH BRAINS"

Condensed from an address by MR. ALLEN W. DULLES at Hot Springs, Va., on 10 April 1953

IN the past few years we have become accustomed to hearing much about the battle for men's minds—the war of ideologies—and indeed our Government has been driven by the international tension we call the "cold war" to take positive steps to recognize psychological warfare and to play an active role in it. I wonder, however, whether we clearly perceive the full magnitude of the problem, whether we realize how sinister the battle for men's minds has become in Soviet hands. We might call it, in its new form, "brain warfare."

* * *

The Soviet experiment . . . takes two forms: *First,* the attempt at mass indoctrination of hundreds of millions of people so that they respond docilely to the orders of their master. This permits the creation of a monolithic solidarity in the Soviet state which outwardly gives it the appearance of great unity.

Second, the perversion of the minds of selected individuals who are subjected to such treatment that they are deprived of the ability to state their own thoughts. Parrotlike the individuals so conditioned can merely repeat thoughts which have been implanted in their minds by suggestion from outside. . . .

* * *

The Chinese, who are seldom at a loss for a word, have given us the term which has come generally to be applied to this treatment of individual minds: "brain washing." Actually, the Chinese subjected to Communist "thought reform" techniques experienced two treatments: a "brain washing" which "cleansed the mind of the old and evil thoughts spawned by imperialists of the West," and a "brain changing" which implanted the "new and glorious thoughts of the Communist Revolution." In our conception of the perversion of individual minds the term "brain washing" seems aptly to describe this phase of brain warfare.

* * *

To create conditions which permit the mass indoctrination of millions of people, certain prerequisites are necessary. In particular it is necessary to close off with an impenetrable barrier the area within which the operation is to take place. This is what Winston Churchill described so graphically in 1946 as the Iron Curtain. It is the physical and spiritual barrier by which the Soviet Union has isolated itself and its satellites from the outside world.

* * *

All of these facts are well known to us—it is only when we put them together and see their cumulative effect that we can appreciate their full meaning. We have, none of us, ever been subjected to conditions where year by year we have been told one thing, read one thing and allowed to think one thing. It is otherwise in the Soviet Union. There thought is prescribed. No alternative is offered.

In our own daily lives, by contrast, we are given choices. We can make up our minds as between possible alternatives. It is hard for us to conceive how our own minds would operate if, say, for the last 20 years, we had been given only one choice and heard only one message. I can only assure you of my firm belief that few of us would have withstood such treatment and kept an open mind.

During the past few years, in particular, the people of the Soviet Union and of the satellites have been given one theme song about the Western democracies and especially the United States, namely, that we are the enemy of the Soviet people, that we are plotting their downfall and attempting their encirclement. . . . It is the most vicious campaign of hatred that any country has ever attempted against another. It is a campaign intended to condition the minds of the Russian people so that their leaders could embark on any type of aggressive action against the free world. Unfortunately, it is a campaign that is making steady progress under conditions where no dissenting voice is allowed to interrupt the hate tirade, even though the crescendo may be toned down during "peace offensives."

* * *

THE second phase of the brain-conditioning program of the Soviet is directed against the individual, case by case. Here they take selected human beings whom they wish to destroy and turn them into humble confessors of crimes they never committed, or make them the mouthpiece for Soviet propaganda. Here new techniques wash the brain clean of the thoughts and mental processes of the past and, possibly through the use of some "lie serum," create new brain processes and new thoughts which the victim, parrotlike, repeats.

The development of these new techniques has been under way in the Soviet Union for a long time. We first had some inkling of what they were doing during the notorious purge trials of the late 1930s. Then we saw hardened Old Bolsheviks, veterans of many revolutions, who became like docile children in the hands of the Soviet prosecutor, Vishinsky.

* * *

After the war, Soviet science and ingenuity made rapid strides in the study of mental reactions and in the nefarious art of breaking down the human mind. Possibly the case that most startled the West was that involving the confession of Cardinal Mindszenty, in Hungary. Here a man of proven courage and outstanding intellect was brought to a point of publicly confessing actions which those who knew this outstanding character could not possibly have attributed to him.

* * *

There is one interesting feature about this type of trial: it

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is the length of time between arrest and confession. It is rarely less than six months. This is not because "Communist justice" cannot move with rapidity when it wants to. In fact, few things can be more rapid. But, in cases where detailed confessions in open court are desired, there must be a considerable period—probably a minimum of around three months —to properly indoctrinate the intended victims. Mere written confessions could be much more quickly extracted by torture.

What does this indoctrination consist of?

WE, in the West, are somewhat handicapped in getting all the details. There are few survivors, and we have no human guinea pigs, ourselves, on which to try out these extraordinary techniques. The Soviets have their political prisoners, their slave-camp inmates and finally, and most tragic of all, our own countrymen whom they hold as prisoners.

We now have, however, some evidence on which to base a judgment. A few have escaped from the ordeal of brain washing to tell their story. One of the first was Michael Shipkov, a young Bulgarian officer educated at Robert College in Istanbul. He served for a time with the American Mission in Bulgaria following the end of the war. In 1949, he was arrested by the Bulgarian Communists, subjected to the brain-washing technique, miraculously managed to escape, reported on his experiences to the American authorities and then, in attempting to escape from Bulgaria, was tragically caught and liquidated.

The techniques employed in the case of Shipkov were somewhat crude but give the pattern of the later, more-refined methods. One element stands out in all the known cases. It is endless interrogation by teams of brutal interrogators while the victim is being deprived of sleep. In the earlier days, as in the Shipkov case, some minor tortures were employed. Shipkov was forced to stand in an awkward position without being allowed to move during the interrogation. Only a short time was required to "break" him, as all that was required of him by the Communists was a signed confession. As he looked back upon his experience, here is what Shipkov wrote:

> Out of the jumbled memories, some impressions stand out vivid. One: they are not overinterested in what you tell them. It would appear that the ultimate purpose of this treatment is to break you down completely, and deprive you of any will power or private thought or self-esteem, which they achieve remarkably quickly. And they seem to pursue a classic confession, well rounded off in the phraseology, explaining why you were induced by environment and education to enter the service of the enemies of Communism, how you placed your capacities in their service, what ultimate goal did you pursue—the overthrow of the people's government through foreign intervention. And they appear to place importance on the parallel appearance of repentance and self-condemnation that come up with the breaking down of their prisoner.

* * *

THE Communists have recently been showing a film portraying young American aviators who publicly make spurious "confessions" of participation in the use of germ warfare against North Korea. We have a copy of this film and I saw a showing the other day. Here American boys—their identity is beyond doubt—stand up before the members of an international investigatory group of Communists from Western Europe and the satellites and make open confessions, fake from beginning to end, giving the details of the alleged dropping of bombs with bacteriological ingredients on North Korean targets. They describe their indoctrination in bacteriological warfare, give all the details of their missions, their flight schedules, where they claim to have dropped the germ bombs, and other details. As far as one can judge from the film, these pseudo confessions are voluntary. There is little prompting from the Communist interrogators.

More recently, the Chinese Communist radio broadcast what they claimed were the recorded voices of a colonel and major of the United States Marine Corps, captured last July, giving, in the greatest detail, fictitious information regarding preparations for bacteriological warfare in Korea. Since then these alleged confessions have been introduced by the Communists into the proceedings at the United Nations.

These statements bear the usual hallmarks of Soviet-imposed fabrications—for example, the humiliation and repentance of the individual at having engaged in such activities. Again, as in the case of the Soviet trials, there is a period of some six months between the date of capture and the alleged confession: adequate time to allow for the elaborate planning by the Communists of what the confession should contain, the drafting of the "scenario" as it were, and the—roughly—two or three months needed for the indoctrination of the patient.

THE only factor that prevents the Communists from employing these procedures on a mass scale is the problem of manpower for the task and the shortage of trained interrogators. Presumably there are schools in which interrogators are trained in the techniques of brain washing. However, to deal with a hundred victims at a time would require the services of four or five times as many trained interrogators over a protracted period. Each man has a team assigned to him and each case is individually prepared.

I have talked with one man who has gone through the brain washing process, an eminent American missionary in China. He had the unique experience of going through the treatment and then of being released and given his freedom. This is very unusual under Soviet practice.

This man described how he had been subjected for 75 days to the monotony of interrogation, mostly during the night hours, by relays of brutal questioners; deprived of sleep and subjected to the effect of bright lighting during the period of his questioning. As far as he knew, no drugs were used, but of course they might have been used without his knowing it. In this case, no direct physical torture was applied.

After many days of this interrogation his mind was broken down, and he went into court and gave what he now recognizes to be completely false testimony against one of his fellow missionaries, asserting with confidence that this other missionary had a concealed radio with which he was communicating with "the enemy." He gave this testimony with vigor and with what, at the time, was apparent complete confidence in its truth.

* * *

The information on which I have based these remarks is none of it secret; it is all available to any student who wishes to study this form of warfare which is now being practiced against us. . . .

Battle Underground

SPIES AND SABOTEURS

Thomas M. Johnson



Four German agents pose before the radio equipment captured with them. After interrogation by U. S. authorities they were tried by the French.

IN the chill fall of 1944 the 6th Army Group, consisting of the U. S. Seventh Army and the French First Army, was poised in Alsace, on the banks of the upper Rhine, and preparing to breach that famed water barrier and enter Hitler's sacred Reich. The battles and the operations of that campaign are well known now, but the story of the concurrent undercover battle between Nazi spies and saboteurs and Allied counter-intelligence forces has never been told. The successes of the Allied secret services saved many an American and French life and helped make possible the subsequent military operations.

The German intelligence planners had conceived an artful and large undercover operation.

As the German armies retreated across the Rhine, the region was left crawling with stay-behind spies and saboteurs, all carefully coached and primed for their work. Some of them were French-Alsatian traitors, some were former Gestapo torturers, but the most dangerous were veteran agents of Nazi intelligence.

The U. S. CIC and the French *Service de Securité Militaire* (SSM) went into action as General Devers's armies moved in. Suspicious persons were rounded up and questioned and in time the careful work paid off: in a compartment in the artificial leg of a trusted German agent, killed by a revengeful French Resistance fighter, CIC agents found a notebook listing in broken code the names and addresses of his subordinate agents. Many of these were rounded up.

The principal method of sabotage was small but deadly bombs faked to look like lumps of coal. These could be dropped into the tenders of locomotives used to bring in supplies to 6th Army Group. Clever work by the CIC revealed the hiding place of the *Abwehr's* final reserve of these and a potential threat to the Allied forces was foiled. For this, Seventh Army CIC was officially commended.

BUT the spies were far more dangerous than the saboteurs, in number, intelligence and organization. Many were not in the brown notebook or on any other list CIC had. They worked in numerous separate networks, each ignorant of the other networks' activities. Information was reported to the operator of a "WT" or wireless transmission set, usually through a go-between. Still, when these go-betweens went between the spy and the operator, often they had to pass through our checkpoints. There they might be detected if they carried no pass or the wrong one. Few checkpoints could search every passerby, so our guards developed a sixth sense based upon the appearance or manner of an apparently innocent traveler, or his answer to a simple question:

"So you've walked fifteen miles? How come your shoes aren't scuffed?" Or: "You were in Strasbourg Monday? Where did you find shelter during the air raid? . . . In a cellar? Well, there was no air raid in Strasbourg on Monday. Put 'em up!"

Then searching hands might reveal, carried carelessly in a pocket, an apparently innocuous letter. But between its lines chemical reagents would develop invisible-ink listings of American troop movements or targets for bombing; or the same information written or typewritten on non-crackling tissue paper hidden in a double pocket lining or between shoe-soles. There were enough of these to be worrisome, for surely some were getting through. And it was harder to pin down a suspect who carried no paper, but had memorized his report. Go-betweens were often close-mouthed, for if they talked, the *Abwehr* lost a WT set and hence the information gleaned by the ring that fed it.

If handled by a good ring and well-hidden, a WT is the most dangerous weapon of modern espionage. The invention of this contrivance and the plane and parachute to drop it, with or without the operators to work it and the spies to feed it, is responsible for the fact that during the past war and today and in the next war, where formerly there was one spy or saboteur, there were, are and will be a multitude. The Russians used a hundred thousand on their Western front alone. A complete defense has

THOMAS M. JOHNSON, newspaperman and author of many books on spies and saboteurs, is a veteran delver into the mysteries of military intelligence and counterintelligence.

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not yet been worked out, but in 1944-45 we made notable progress. Our radio-intercepting stations located some WTs in action, which were then nabbed in sudden raids. If the harried operators moved about, they had usually to carry the sets in suitcases. The checkpoints searched every piece of hand-baggage, no matter how innocent-appearing a refugee might be lugging it. We made some hauls that way. In fact, in Alsace we seemed to be making the enemy deaf and dumb rapidly.

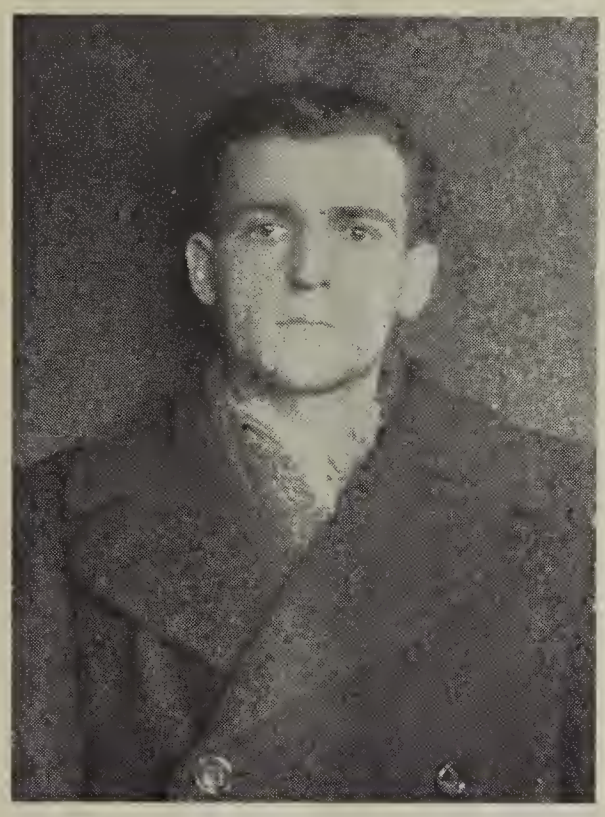
BUT then came an event, strange and ill-omened. At night, a loyal Alsatian peasant heard overhead the unmistakable sound of a German plane. Peering out nervously, he saw it swoop down over a clump of woods. From its underside dropped an object that, outlined blackly against the moon, he saw to be shaped like a coffin. Above it a parachute opened. The bellying nylon and its sinister cargo swooped down and fell into the woods. The plane darted away. Then from among the trees crept two figures bearing bundles. They hurried off toward an area where American troops were quartered. And so, after he had recovered his startled wits, did the Frenchman, to tell his tale to CIC.

Our spy-hunters faced a ruse and a contrivance new to espionage, the "flying coffin." About the size and shape of a funeral casket, it was a box that the *Abwehr* dropped at night from a plane behind our lines, preferably, for concealment, in woods. Once landed, its lid was unscrewed by two agents who had huddled within, with a WT set. Before dawn they took their evil cargo to the nearby hideaway of a stay-behind key-member of a ring whose WT had been lost. He took the newcomers to a safe sending station, and soon they were flashing the ring's collected information about American and Allied activities through the air to the *Abwehr*.

This trick threatened to undo much of CIC's good work and postpone the day when 6th Army Group could resume the offensive. But immediately word was sent to all peasants that if they reported the arrival of "men from Mars," they would receive American rations.

The "flying coffins" were proving to be just what the nickname implied. The woods were concealing them altogether too completely for their occupants' good. Some were catching in the upper branches of trees, which made the agents helpless as fledglings in a nest. Others landed so hard that, despite the padded interiors, they were killed or injured. Also, they were so badly shaken or so furious at the *Abwehr's* assurance that their deathtrap conveyances were safe, that they told CIC all they knew of the whole grotesque enterprise.

As a climax, a diminutive and badly bruised French renegade, who had been told that one of his light weight would



A typical Alsace line-crosser captured in November 1944. He claimed to be a refugee, offered tactical information and asked for a travel pass. Investigation revealed he was an Abwehr agent with a mission to Paris.

surely escape unscathed, revealed in advance that the *Abwehr* was now going to drop, not the coffins, but the idea. Instead of strewing the landscape with agents, they would strew it with WT sets, each in a padded package, each at a rendezvous arranged by radio or courier message with some stay-behind who was to come and collect the package. The French peasant lookouts spotted these windfalls, too, and won more rations by reporting them. Our agents waited in hiding near the fallen sets until the enemy came to pick them up. It worked so nicely for us that presently one stay-behind agent disclosed that the *Abwehr* was trying something else.

IT was now sending disloyal Frenchmen afoot through the wooded country to penetrate our front lines. Chosen for poker-faced nerve, they were to pose as refugees returning home. Once through, they were to rendezvous with stay-behinds still at large, and take their reports back across the Rhine. A cable had been laid just under water to guide a nocturnal rubber boat ferry.

At this point Colonel Albert Botkin sent throughout the Seventh Army area a troupe whose actors were several captured and converted enemy agents. From improvised stages they explained to GI audiences a spy's work and how, if he succeeded, when we tried to carry the ball across the upper Rhine, the enemy would know our signals—and many a GI would die needlessly. Colonel Botkin exhorted:

"Watch out for line-crossers! Report to CIC everything that looks unusual."

Soon an outpost sent word:

"This looks unusual to us. Here's a Frenchman with a lotta kids. Says he's taking them home. They say he's their dear teacher, but he looks too tough. How about it?"

The children's cries were suspiciously uniform and unanimous. CIC applied candy bars as a truth serum and they admitted having first seen their "teacher" an hour earlier when he gave them 250 francs each and told them what to tell the Americans. On his person were found 100,000 francs in new notes.

"Printed from French plates we know the Nazis seized," CIC told him. "And all nicely numbered in sequence! When the *Abwehr* handed you these, they almost stood you up before a firing squad. You'd better talk."

The line-crosser got the point. And so CIC spread another alarm.

"Look out for line-crossers with too much money; new bills of the old issue, numbered in sequence."

This warning detected several more paymasters. When the *Abwehr's* carelessness of their lives was explained to them, they revealed what stay-behinds they were to pay and where they were to meet. Also this revelation led to one of the war's outstanding spy exploits.

THIS devious, delicate case began when a burly, dark man crawled from a wood into the arms of waiting GIs. He said he was an Alsatian named Haas and wanted to join the French forces. He carried 50,000 francs in the telltale bills, so Seventh Army CIC accused him of being a spy. But, square jaw clamped tight, Haas stuck to a detailed story that, while altogether too plausible, seemed unbreakable. Suddenly the interrogator pointed to the subject's distinctive sports sweater and demanded:

"Where did you get that?"

The prisoner's lips formed a syllable —"Pa-"—but suddenly changed to "Mulhouse." The interrogator had seen the sweater's double in a Paris shop window, but earlier Haas had denied ever being in Paris. Opening Haas's wallet, the interrogator extracted a woman's photo-

graph. Where, he asked, did she live? Again the lips formed "Pa-"—then changed.

"You're lying!" snapped the American. All night CIC flailed Haas with questions. A German air raid extinguished all electric lights; they kept on eerily by candlelight. But the prisoner stuck to his story. So they decided to vary the treatment.

"There are just two questions you've got to answer for yourself," they told him. "Which side is going to win this war?" "Then hadn't I better join that side while the joining's good?"

They put him in a dark cell, alone, to think it over. In the morning he rattled the bars and confessed.

He was Ludwig Nebel, a German Swiss but a Nazi fanatic and veteran secret agent under the notorious Lieutenant Colonel Otto Skorzeny who headed the sabotage section of the Nazi Military Intelligence Service. Skorzeny had taught Nebel how to use explosives to do the Allies the most possible damage, then had sent him with a group of picked dynamiters to Denmark. They were to blow up a Danish building or landmark every time the Danish Resistance blew up a German installation. Since many Danish patriots were students at Copenhagen, he had blown up their Union building. Then Skorzeny had sent him to the Spanish-Portuguese border to waylay a diplomatic courier with his documents, and then to Paris to train pro-Nazi French youths to blow up American equipment after we had liberated the city. Now, Skorzeny had aimed his formidable human weapon at the Americans. He had sent Nebel to penetrate our lines on a mission that, if successful, would at one blow wreck our hopes of being able soon to cross the upper Rhine.

NEBEL was to cut our life artery, the pipe-line that pumped the Allied armies' indispensable gasoline from Marseille to Epinal in Alsace, by blowing it up with Nipolit. He was to get this new German explosive at an underground storeroom now behind our lines, that the Germans had dug before leaving. There their stay-behind agents or those who came there later, could obtain explosives, arms and canned food. Lest Nebel reveal its location under the torture they were sure we would use on so important an agent, he had not been told. He was to be led to it by two other agents, Vliegen, and Zeiler, who were to meet him the next day at such a place. CIC kept the appointment and seized the pair. They revealed the location of not just one but several secret caches. That ended that Nazi plot, but began an Allied counterplot that was infinitely more successful. Allied Counterintelligence traced Nebel's wife and child to Paris, then told him:

"We'll take you to them. We won't tell your wife about that babe whose picture was in your pocketbook—if you keep on playing ball with us and tell us the truth."

Nebel got the idea. Also he vowed that the lady of the snapshot had been only a passing fancy. He greeted his wife and child with apparently genuine affection and was pleased at their account of the good treatment they had received from the Americans. Association with CIC reawakened the Swiss's faith in democracy—also the burly athlete realized that his only chance to save his life was to get back on democracy's team. He seemed so sincere that Counterintelligence decided to try upon him the most delicate manipulation in the puppet-show of counterespionage. They would "turn him around," send him as a



One of two parachutists dropped in a "flying coffin" near Luneville, France, with radio gear. There was a serious question as to whether the "flying suit" he wore over his German uniform had a close enough resemblance to winter outer garments worn by Allied troops to charge him with masking his identity in violation of the rules of war.

spy for the Allies, back again into the labyrinth of the Nazi secret service, thence to bring us information of its inner workings.

This meant that he must return to his former bosses with a story so plausible and circumstantial that even those confirmed cynics would be convinced it was true, and would continue to trust him. Counterintelligence coached him carefully and provided him with information about us that he was to say he had gathered; all true, but harmless. Also, he was to say he had blown up an American headquarters in Paris. To prove it, they gave him faked clippings from Paris newspapers describing an "explosion" at "an important Allied installation" there. They told him that they would hold his family as hostages, whom he could see again if he came back to us.

THEY took him to a quiet portion of the front and at night smuggled him past our outposts into No Man's Land. They heard him, challenged by a German outpost, proclaim joyfully that he was a good Nazi secret agent returning to make an important report. Then—silence. Counterintelligence began to wonder whether it had guessed wrong on the big saboteur. Turn-arounds were a great gamble; might do a double turn and come back to you to spy again for their old masters.

Then, after weeks, at the place agreed upon, a hulking figure confronted an astonished GI lookout with the request:

"Bleece—I vill zee Zee—" Before he could finish, the GI covered him with his rifle. "You will see what?" he gasped.

"I vill zee Zee-I-Zee," said Nebel.

Other strange guys had asked for CIC and the GI knew they were hush-hush guys—our hush-hush. Still, he ran his hands over Nebel's body. He found no weapon, but:

"I ain't takin' no chances," he said. "Keep them hands up. *Hendy hoke! Verstay?*"

To a welcoming CIC the hush-hush guy presented a decoration, a photograph, and an amazing story. The photograph showed Hitler himself pinning the decoration upon the chest of Ludwig Nebel, our double spy. The story told how first the Fuehrer had almost put a rope around his neck, for while Nebel was reciting his prepared tale, in had come a report from Alsace that caused consternation and suspicion.

Another Swiss Nazi, who had been an *Abwehr* agent until captured by us, had just returned to his former associates. Tonini, called "Toni," had been for years a mercenary spy for the Swiss, the French, and the Poles before the *Abwehr* drafted him. He had done so well at his shady profession that they had given him command of the detachment in Gerardmer in Alsace. He had sent many agents into our lines. Also, he had maintained an apartment known as "Toni's bar," where he supplied his

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associates with liquor and women. Flabby physically and morally, when CIC captured him, he broke quickly under interrogation and named and described his former pals so freely that he was shown photographs of a few we knew and asked to tell whatever he could about them. He was so willing that it was decided to double him.

But the *Abwehr,* too, knew his weakness. When he reentered the German lines, they accused him of having sold them out to the Americans. He denied it but they tortured him. And again he broke and confessed. CIC had let him learn little enough of its workings and personnel, but he did tell of having been shown Nebel's photograph. That was the report that had just come in. So now the *Abwehr* roared at our double spy, Nebel:

"The American CIC has a photograph of you! How did they get it?"

Nebel seemed to hear the torturer's red-hot iron sizzle for him. But he was no weakling like Toni. He thought and talked fast.

"Sure," he said, "I had a photograph taken for my wife, by the local photographer in Gerardmer, that many of us patronized. When the Americans came he must have told them about it, and CIC seized his stock. Certainly I never let CIC photograph me! Why, I hate the lousy so-and-so's."

The *Abwehr* believed him. He was an old-line Nazi and the information he had just brought, cooked up though it was, checked much better for accuracy than that delivered by many of their agents who had not been turned around. And the newspaper clippings:

"Just like the fool Americans," they said, "to let military information of that sort be published."

So they told Hitler that Nebel was an unsung hero of the secret war. The Fuehrer, who loved intrigue and intriguers, decorated him and had a photograph taken of the ceremony. Which Nebel brought back to us, with the decoration, proof that he had wrecked a German troop-train, and some valuable information. Also, the commanding officer of his former detachment. Finding this old friend's loyalty to Hitler as weak as his own, Nebel had persuaded him that the Fuehrer was going to lose the war and had promised to get his old boss in right with the boys who were going to win it—the Americans.

Nebel became a very successful Allied double agent. He made more crossings to the enemy side of the lines, with good results. When we reached Munich, he was waiting for us. The CIC agent who knew him best grew to admire his courage. It was hoped that despite his earlier acts against the Allies, the giant Swiss would get off with a light prison sentence. But we had to surrender him to an Allied government which tried and shot him as a spy-saboteur against its security.



U. S. military policemen delivering captured spies to the French, who tried them

Nebel's case was notable also because he had worked for the *Reichsicherheitshauptamt* (RSHA), the Nazi party espionage service. That a mission so important as blowing up a gasoline pipeline was entrusted to an agent of this organization rather than to the *Abwehr* showed how low the official military espionage service had fallen. Many *Abwehr* agents were proving weak characters who, like Toni, under interrogation told all they knew. And they had been allowed to know too much. The supposedly ultra-secretive *Abwehr* had discarded a classic principle of espionage: "Let no agent find out more than he must about anything; especially about who your other agents are."

WHEN some line-crossers we had captured were inspected, a sharp-eyed CIC agent cried: "Why, they're all wearing the same kind of clothes!"

So they were; blue suits with white pin-stripes. Those were graduation presents from a school hidden in a forest in Baden where the *Abwehr* taught aspiring spies how to penerate our lines and what to do then. But they had let the students intermingle, so that they could name and describe all their classmates. And they did. CIC sent out descriptions of suits and wearers to checkpoints and outposts and soon had the entire class, including one member who had graduated only three hours earlier. Then the Air Force bombed the school.

The *Abwehr* threw up its hands. It issued an order unprecedented in its history. No more agents were to be sent against the American Seventh Army. It was too dangerous. The Nazi high brass must just figure out what were the American plans in some other way.

CIC had won a battle under ground which helped make possible more victories on the surface. Our spy-hunters and the French SSM had vacuum-cleaned Alsace-Lorraine of 7,000 men and women who in some way endangered Allied security. Several hundred were shot, but not before they, like the remainder of the 7,000, had given CIC names and descriptions of 5,000 more like them who were to be found in 765 German towns and cities that lay ahead. So CIC could begin a new and bigger roundup of would-be spies and saboteurs when, saved from the danger of a stab in the back, the U. S. Seventh Army and Allied troops in Alsace-Lorraine smashed enemy resistance along the upper Rhine, and crossed victoriously into Germany.

A range designed to give effective experience in

Defensive Field Firing

MAJOR NEIL J. ASTING

WE rightly emphasize attack in our battle conditioning courses and teach the soldier what to expect while attacking and seizing an objective. We do not provide for similar defensive training. We have them move into an area, dig positions, plan defensive fires, and move out again. But we never actually give our men an opportunity to test defensive fires under near battle conditions.

We can increase our effectiveness against attack or counterattack by prebattle conditioning for defense. Here's one proven way to do it.

Six trained platoons were separately given the mission of attacking and seizing an objective and then defending it. Time was allowed after taking the objective, for re-organization and the preparation of a fire plan. Foxholes had previously been dug on the objective. The ground in rear of the objective had been prepared with targets which would move toward the position when the counterattack began.

Members of each platoon were thoroughly familiar with the course, for they had helped build it. Yet, at the end of the exercise, three of the six platoons had failed to hit all targets. This could mean that a determined attack might have reached their position. All platoons were guilty of poor fire distribution.

The only conclusions to be drawn from the problem are that excitement, noise of firing, and explosives made them forget their fire plan. They had never conducted a defense before under realistic conditions, nor had they ever tested a fire plan.

This problem did show that we can increase our effectiveness against attack by devising defensive firing exercises. The chart on the opposite page shows an effective defensive field firing range.

The area selected as the target area was 300 yards wide by 250 yards deep. It provided excellent fields of fire.

Twelve rectangular ditches were dug perpendicular to and about fifty yards to the front of the defense position, extending about 250 yards in depth. Each ditch was twenty-two inches wide by about sixteen inches deep. Two sleds were placed in each ditch and joined together by a wooden pole. An "E" type silhouette target was mounted on each sled and hinged so as to disappear.

When it came time for the counterattack to begin, the sleds were towed towards the objective, the targets coming to the upright position by pulling the tow lines.

Targets in groups of sixes moved forward about ten yards at a time before disappearing. When they were within 100 yards of the defense position, all were raised upright and moved forward the remaining distance, simultaneously, simulating an assault. A tank target was towed by truck to provide a target for the rocket launcher team.

The cease fire was given and targets were scored. The scoring stimulated a competitive spirit between platoons.

If no funds are available for construction, salvaged materials may be used. Sleds can be constructed out of discarded crating lumber and salvaged W-110-B wire may be used for tow lines. Strips of rubber cut from an old inner tube and nailed to target and sled will pull the targets to the prone position when the tow line is slackened.

Targets can be towed by truck, winched forwarded, or hand operated.

THIS is a realistic course for defense training that affords a unit the opportunity of practicing defensive fires with observed results. Variations may include the erection of barbed wire and the use of supporting weapons firing overhead at targets beyond the ditches.

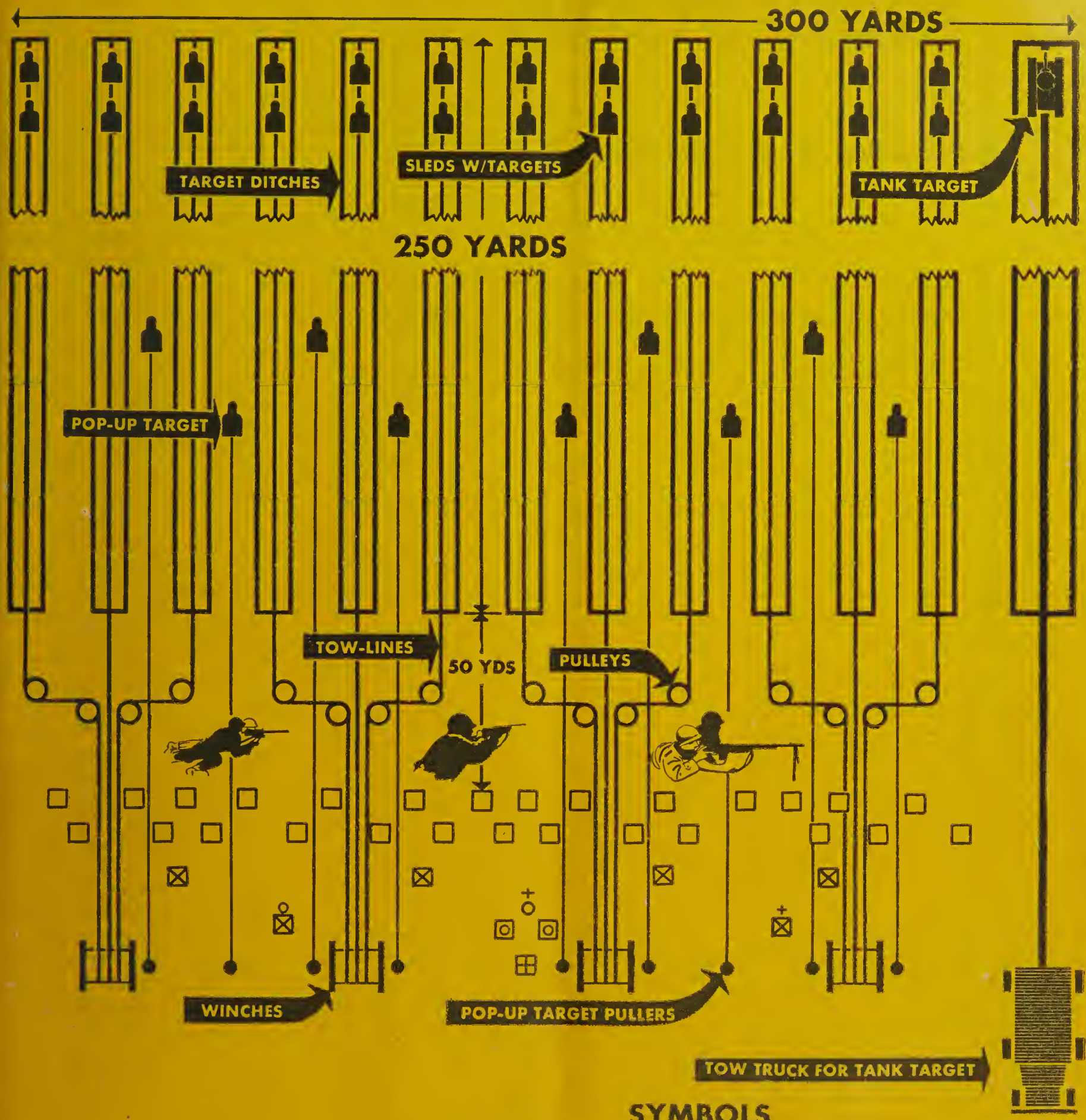
Moving targets in upright position. When the tow line is released a rubber strip attached to target and sled pulls the target prone.



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DEFENSIVE FIELD FIRING RANGE

(RIFLE PLATOON)



SYMBOLS

☐ Assistant squad leaders, riflemen, machine-gun crew, BAR team, bazooka team

⊠ Squad Leaders

⊠ Assistant Platoon Sergeant

⊠ Platoon Sergeant

○ Platoon Leader

◎ Messengers

⊞ Aid Man

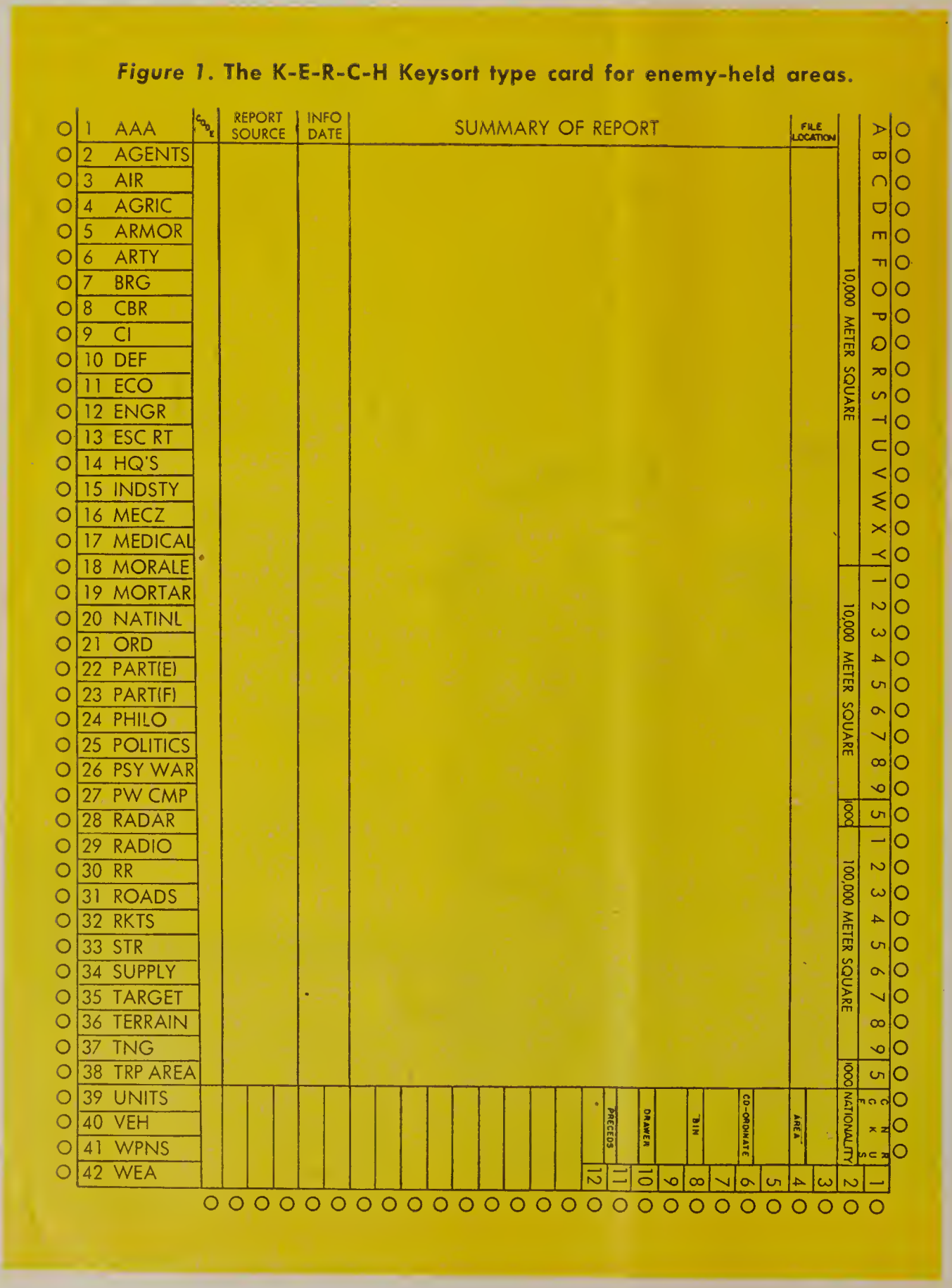
Movement of targets toward defense position is controlled by range officer. Only men in forward positions are permitted to fire. Squad leaders control fire of their squads. Weapons squad is placed on the right. BAR, bazooka teams and machine-gun crews occupy two-man foxholes. Foxholes should be spaced to prevent direct fire into sleds and tow lines in ditches.

Harassed S2s, Persecuted G2s Use

INTELLIGENCE CARD INDEX SYSTEM

Majors James W. Kerr and Gerald C. Burch

Figure 1. **The K-E-R-C-H Keysort type card for enemy-held areas.**



HAPPY the man, blessed the staff section, whose files and stocks in trade can be kept in a single box! But how rare! And any time the boss of a staff section finds he can no longer operate out of a satchel, he'd best stop and cogitate deeply, for confusion is about to set in.

Take, for example, the harassed S2 or even the persecuted G2, who by virtue of either a prolonged stable situation, or the high echelon at which he finds himself, discovers that he has passed the single satchel stage. Let us say, for simplicity of illustration, that his is now to become a two-satchel office. What is the most dangerous pitfall confronting him? It's the allegedly logical extension of the two-satchel system—the two-file system. Under this system, each Satchel Operator files a copy of everything, thereby overcrowding both satchels and requiring more satchels with operators, each of whom files one or more copies of everything.

A word of advice, G2: when you grow out of your first field desk, or your first tent; when you set up several branches of the intelligence section; when some branch asks for an extra copy of *anything* for its own files: *act!* Send a hundred-man detail (you'll need 'em) into that branch and remove every file and every scrap of paper to be found, set up a central file, and make the branch chief justify anything he claims he needs to keep on hand in *his* file. Make him justify it and don't be moved by tears. Threaten to nail his desk drawers shut.

THE next fifteen paragraphs are an introduction to the Kerch G2 system. Kerch has two slogans: "Central Files Can Be Efficient" and "You won't be left in the lurch if your files are kept by Kerch."

The first type of file an expanding or a new office is likely to set up is an "action" file. This consists of many dozens of slightly related sheets of paper bound together with a

MAJORS JAMES W. KERR, Infantry, and GERALD C. BURCH, Infantry, were both on duty in Eighth Army headquarters when they devised the index system they describe here.

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cover sheet listing the title of each. The only action this guarantees is a flap, or flurry of paper riffling, when the Old Man asks a question. Shun action files.

If you think things through only part way, or if your outfit is guaranteed not to expand, you may settle for "subject files." This is a step in the right direction. But decisions as to whether to put "schooner" under "Navy" or under "beer" will soon wear you down. That's not to mention what will happen when the Old Man spot-checks your "Operations" file and finds a description of someone's appendectomy.

You had better go all the way, and if the present or expected size of your central file warrants it, install either the D/A Decimal System or the Intelligence File Index Decimal System. The latter is perhaps a trifle more detailed than needed by most offices, but the old D/A system fits a good many quite well indeed. G2 is an office of record, you know, so you don't get to push this off on the AG like G3 does.

Now for the commercial. Although a decent cross index system can be used with any decimal setup, G2 or otherwise, the G2 has two fields of interest which require special measures. These are enemy-held areas, and enemy units. Kerch has cooked up a Keysort type card for each one, to replace the extraction and Order of Battle highlights systems. Look at Figure 1, the area card. Note that there are general topics of G2 information along the sides, with correspondingly numbered holes. In the center is beaucoup space for typing in extracts of the information on a given area, along with space for tying each extract in to the topic it discusses. "Bridges" is number 7, so any entry mentioning bridges would be marked "7." A column on the right provides space for showing the decimal file number of the extracted document.

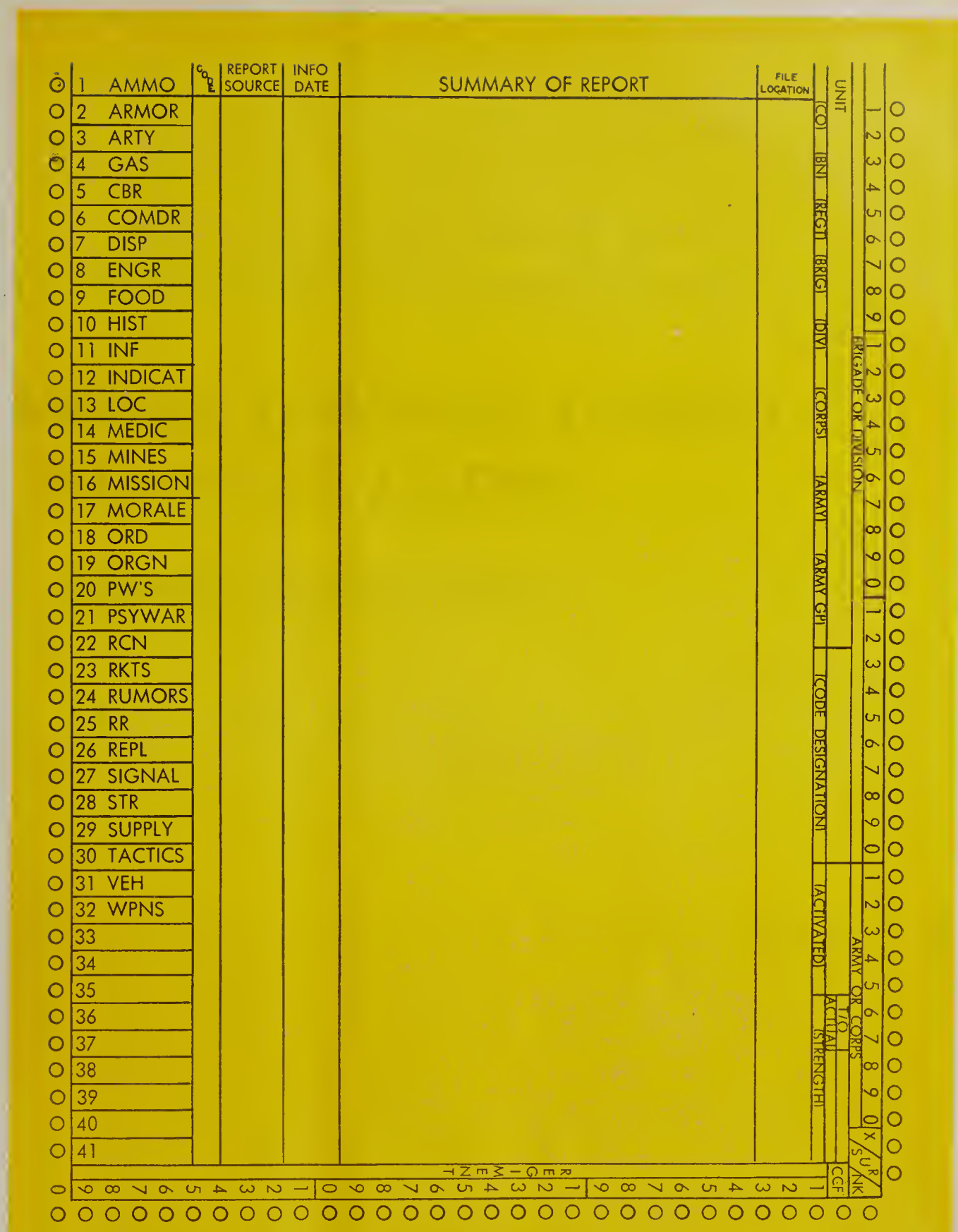


Figure 2. **Card for enemy units, devised by K-E-R-C-H.**

LET us brief the Keysort System as applied to the Kerch cards. We propose to file a card for each unit (and each area) each month, with entries posted by month of occurrence, *not* month of reporting. The cards are punched to show which unit (or area) they pertain to, also which month, and any other information the filing geniuses may want. When an entry is made, the card is punched to show that it bears information in that specific category. So, if we make an entry on "Bridges," we punch out number "7" as well as marking "7" before the entry. Then, for large scale studies, a selector device can be used to pick out, by means of the punched out parts of the cards, most anything you want. For quickie check-ups, you can find things by hand.

As an example, if we want to know all there is to know about the AA 9901 grid square, now in Aggressor hands, we set our selector keys for coordinates AA 9901, and all cards pertaining to it drop out of the file. But if we want to know about only what went on there during May, we set the keys for the square *and* for May, and that will be the only card we get. Similarly, we can select any topic listed along the sides; if we set our keys for "7," only cards bearing "Bridges" will be produced.

Before you wet blankets reach for your typewriters to tell us TAG abandoned this system for personnel record use some years ago, let us tell you why he did. It was because:

(1) Too frequent punching was required.

(Continued on page 33)

The case for that hard-working soldier who turns the vaunted fire power of our modern weapons on the enemy

COMBAT COMPANY COMMANDERS SHOULD BE MAJORS

MAJOR RICHARD A. CRECELIUS



BEFORE I tell you why combat commanders should be majors, let me define a combat company. I mean a company-size unit of a combat arm whose primary task is the direct engagement or interdiction of the enemy on the battlefield. This definition covers infantry rifle, weapons, mortar, and tank companies; artillery gun, howitzer, and rocket batteries; tank and armored reconnaissance companies and the letter companies of combat engineer outfits. It excludes all combat arms' headquarters companies, service companies, or combinations of them. These are essentially operations, communications, resupply and maintenance units, rather than "fighting" outfits in the basic sense of the term (although there probably will be some "fighting-mad" headquarters and service company commanders when they read this).

Of course, my definition excludes all units of the non-fighting services: Ordnance, Quartermaster, Transportation Corps and others. By this exclusion I don't mean to imply that a case cannot be drawn in their behalf; but someone else will have to do it.

Now that we know what a combat company is, let's look it over with an eye to outlining the personal and professional prerequisites of its commander. I'm going to use as an example the infantry rifle company, because there are more of them, and because I feel that it represents the basic pattern of the "fighting" companies of all the combat arms.

Since way back when, the rifle company has been, and is today, commanded by a captain. Back in the "old days," the rifle battalion was commanded by a major. Staffs were small and simple then; an adjutant to handle what little staff work there was, and maybe a lieutenant to run errands. The command relationship between company captain and battalion major was direct and personal.

But shortly after World War I, things began to change. New staff jobs were created, slowly at first, but with snowball effect, to administer the new tactical and administrative techniques evolved over the years. Executive, S3, S1, S2, assistant S2, assistant S3, liaison officers back-to-back, S4, munitions officer, communications officer, air officer . . . all these staff jobs blossomed with each change in the Tables of Organization. From one in 1917, the rifle battalion staff has grown to six today. (During this same period, the staff of the field artillery battalion increased from one to fifteen; the infantry regiment from three to ten.)

And what about the company commander during this period of staff prosperity? He still commands his company and is still a captain. But no longer does he enjoy the simple life, the direct personal contact with the Old Man, that had been the exercise of command when the Old Man was only a (and the only) major, with no staff. Now the Old Man is a lieutenant colonel; the battalion executive and S3, after having been captains for years, have become majors, to lord it over the company captains. Now the multiple staff sections intervene in the command relationship, interpreting and applying the commander's policies (often conflicting with one another) and harassing the company commander with orders, memorandums, directives, and questionnaires—all in the name of the commander, of course. Major Executive and S3 pull their rank on him; Lieutenant Colonel Battalion Commander, from his Olympian stronghold *two grades higher,* hurls an occasional lightning bolt at his luckless skull. And the poor, prestigeless company commander, completely overpowered by the rank arrayed above him, bows his head and grimly carries on.

I say that this should not be. And it all hinges on the matter of prestige,

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or, to put it bluntly, rank. It's a subtle thing, but very real. There is a tangible difference in the relationship between Major Battalion Executive and Junior-in-rank Captain Company Commander, and that which would exist between Major Battalion Executive and his equal-in-rank *Major* Company Commander. In the former situation, the Executive's prestige as representative of the battalion commander is enhanced by his own seniority of rank. There is likely to be a certain amount of rank-pulling in such a relationship that would not be present if the two were of the same grade. Silly, you say? I don't think so. I'll wager that Lieutenant Colonel Battalion Commander doesn't take any guff from the regimental exec, and even less from the regimental S3. One of the major drawbacks to company command today is the lack of sufficient prestige to combat the petty follies and harassments of the staff. After all, the company captain is the *commander* of his own junior bailiwick, and he needs the prestige of equal rank with the staff, so that his representations on behalf of his command will carry equal weight in council. Too often the poor company captain is not overruled so much as he is outranked!

But that is just one reason why combat company commanders should be majors. Here's another. Since the First World War, ground warfare has undergone a far-reaching evolution. New weapons, new organization, new tactics have been developed, adopted, and then made obsolete by even newer weapons, organization, and tactics.

During the First World War, combat in a rifle company was fairly simple. Not easy, but simple. The 250 men and six officers made up four platoons (War Tables of 1917). For weapons the company had 235 rifles, 73 pistols, and 16 BARs (eight of which were retained in company reserve as spares). The rifle company literally was a *rifle* company; there were no other major weapons except the two BARs per platoon.

The tactics, when judged by today's, were rudimentary.

FROM a strictly professional standpoint, the World War I company commander didn't have much to do. Of course, he made a reconnaissance if there was time. He checked and supervised his company's preparations for battle. He disposed of the administrative problems and details common to all combat troop leaders. But still, it was a fairly simple job. He didn't have to worry about finding a spot from which his machine guns could provide an effective base of fire. He had no machine guns. He had no trouble deciding whether or not to attach his mortars—he had none. He didn't have trouble finding suitable positions for his recoilless 57s—he had no 57s either. He didn't ponder over the employment of the attached tank platoon—none available to him. He didn't fret about whether the artillery FO could be depended upon to deliver fast, accurate support when and where needed. There was no FO. What general fire support he got was furnished from above, usually without knowledge of or regard for his particular needs. At H-hour he blew his whistle and the platoons moved out. When the barrage lifted, he and his company fought on alone, with rifles and BARs, bayonets and grenades, and were successful or not according to the fortunes of war.

The commander of this company was a captain.

NOW let's look at the rifle company today. It's smaller by forty-five men. but that's not the significant change. The modern doctrine of fire and movement is reflected in the make-up of every echelon of the organization. The rifles and BARs are still there, but now also are machine guns, mortars, recoilless rifles, and bazookas. The numbers and power of supporting heavy weapons are greatly increased, and their fires made instantly available through forward observers assigned to work with the company. The concept of the combined-arms team—infantry-with-tanks, or tanks-with-infantry, all supported by artillery—has been forged into a mighty tactical weapon, and the company commander shares in its command. No longer is he just the leader of 235 riflemen and eight BAR teams. He now commands, or commands the services of, a heavily armed and armored task force, supported by the pyramided power of every artillery weapon within range.

And the tactics are anything but rudimentary.

"This company, with 1st platoon, regimental tank company attached, attacks at 0600 tomorrow to seize the right half of the battalion objective. LD—present positions. 1st and 3d platoons in assault, 1st on right; 2d platoon in support.

"Weapons platoon: 57mm rifle squads, attached to platoons per SOP.

"Mortar section: general support. Be prepared to displace on order when initial objective is reached.

"Tank platoon: Support attack from positions along LD. When assault platoons reach phase line Charlie, move out on my order to assault the objective. Check your plan with mine when formulated.

"MG Section, Weapons Company: in direct support. Weapons platoon leader recommend fire plan. Displace when fires are masked by assault elements.

"81mm mortar observer: Priority of fires to 1st platoon. Give me your plan of OP displacement. Be prepared to adjust defensive fires in front of 1st platoon to cover reorganization on objective.

"Arty Forward Observer: Keep 3d platoon zone under observation. I will give you my fire plan later. Be prepared to adjust air bursts ahead of tanks in their assault on objective. Give me your plan of OP displacement.

"Executive: Establish a resupply point in the woods over there. Platoons replenish their basic load tonight. Mortars dump two additional units of fire at positions.

"My command group will follow up between 1st and 3d platoons. Tank platoon send an agent to me right away. Communications per SOP.

"It is now 1514. Are there any questions?"

The commander of this company is also a captain.

JUST what is the significance of this contrast? Since World War I, the employment of a combat company—and this is true of all arms—has become increasingly complex, with terrific acceleration during and just after World War II. If the World War I company commander was a journeyman at his trade, the post-War II commander is a virtuoso! He has to be.

Yet this virtuosity has gone unrewarded. The gold leaves all go to the staff.

This, I maintain, is unjust and unwise. Show me the staff job at battalion or regimental level that requires the brains, ability, and professional competence required of a combat company commander! What battalion S3 daily meets the imponderables of battle under such personal circumstances? What regimental S2 is entrusted with the direction of such a complex operation as a fighting company? What regimental S4 must exercise more precise professional judgment, with other men's lives the price of error?

Now don't get me wrong. I freely grant that there are staff jobs that are difficult and exacting. But I maintain strongly that they are not more difficult or exacting than the job of a combat company commander. An officer who has attained the level of professional

competence needed to command a fighting company today has reached the estate of field grade. He should be a major.

We know what an important ingredient leadership is in the recipe for a successful combat company. If necessary, the Old Man can command headquarters company (he usually does anyhow), and the S4 can help look after the Service Company. *But no one can command a combat company but the company commander.*

So what happens when a promising young leader rises to a captaincy and company command? Just when he gets well settled in the command groove, he is promoted and shoved into a staff job. There he sweats out a silver leaf, and, years later, reappears in command channels—maybe. In the interim, his arm has lost the use of his leadership where it is most needed—in the combat company.

A high level of leadership and professional skill is required to command the combat company of today's Army. But the officer possessing these qualities is too good to be left a captain so he can exercise them. So he is promoted to a staff job in the Reports Section of the Audit Department of the Analysis Division of the Requirements Branch of the Procurement Office of the Special Staff of the General Staff, Assistant Chief of Staff, G4. It's years before he can burrow his way back to troops.

I don't mean to imply that once a commander always a commander. It takes both command and staff duty to make a well-rounded officer. But it's a long time between captain and lieutenant colonel. The present gap in our command grades robs the combat arms of too many badly needed leaders at the critical level of company command.

THERE is still a fourth aspect of my proposition that should not be ignored. The small, semi-independent, widely dispersed formations—company task forces, perhaps—of the atomic battlefield will need competent, high-caliber leaders, trained in combined arms tactics, and capable of intelligent independent action. These leaders will be required to attain an even higher degree of professional competence and command ability than heretofore. It is only just that such a rise in requirements should be accompanied by an increase in the rank of the commander.

All right now, you combat company commanders, are you convinced? Good! Marshal your facts and memorize your figures. Ready? On to Washington!

The Load of the Soldier

DUFFEL BAG STORY

CAPTAIN JOHN C. HUGHES

LET'S follow a soldier who has completed basic training in the United States and is ordered to Korea as a front-line replacement.

Step 1. He receives a clothing and equipment check and departs his station with a full field pack, a bulging duffel bag, and probably one small piece of personal luggage.

Step 2. En route to POE, he goes home for a short leave. During these happy, carefree days he either loses, sells, or gives away one or more items out of his swollen duffel bag.

Step 3. At the POE he again receives a clothing and equipment check, and his supply is replenished. Once again the duffel bag bulges.

Step 4. During the long sea voyage to Japan, he loses or discards a number of items from the bag.

Step 5. The soldier arrives at the port of debarkation in Japan, and once again



he lines up for a clothing and equipment check. And once again his supply is replenished.

Step 6. A few days later he goes to Sasebo where he will embark for Korea. Here the now familiar check takes place and his duffel bag is again filled.

Step 7. At Pusan he goes through the routine again.

Step 8. He departs from the Pusan replacement depot laden with a swollen duffel bag, full field pack, individual weapon, and possibly a small piece of personal luggage. He goes directly to the "umpteenth" Division Replacement Company, eliminating any processing at Corps.

Step 9. The journey to Division is often a rough ride by truck or train. This, combined with the feeling of going toward the front, makes our soldier fret about the heavy load he is carrying. So he discards items he hears are unnecessary.

Step 10. Upon arrival at the Replacement Company, he is checked out by the supply people and the old bag bulges again.

Step 11. He departs the Replacement Company for a rifle company and, along with his baggage, is delivered to the Service or Regimental Headquarters Company of the Infantry regiment.

Step 12. During a lull in battle, he is led to the reverse slope of a front-line rifle company. He arrives with a full field pack, individual weapon, and swollen duffel bag.

Step 13. The duffel bag is taken from the soldier. It is emptied, the items sorted and stacked with similar pieces of gear. Later they'll be picked up by a unit supply sergeant. His field pack, if retained, will be reduced to a light combat pack, and the same process applied to excess items in it. The supply sergeant will attempt to pass off all of this excess to the battalion or regimental S4. In the end, service elements of the battalion or regiment discover themselves burdened with this unnecessary load and waste.

Step 14. While in the lines our soldier has one set of clothing—the one he is wearing. He may carry socks or change of underwear in his pockets or have a very light combat pack, along with his raincoat. His bed roll, or sleeping gear, is carried in the kitchen trains and

SUPPLY ECONOMY IS A FANCY TITLE FOR THE APPLICATION OF COMMON SENSE TO LOGISTICS

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brought to him with the supper meal and taken from him at breakfast time. In warm weather he often sleeps covered only by a poncho. In cold weather the mountain sleeping bag provides warm and adequate bedding. (It is significant, I believe, that sometimes a unit commander will provide bedding for only fifty per cent of his command, in order to insure that half of his men will be awake during the night.)

Step 15. *(Special note on wounded)* If the soldier is wounded and evacuated from the theater, and then returned to his unit, at a later date, he will bring with him a second duffel bag that is just as full as the first. And it will meet the same end on the reverse slope of his company.

Step 16. When the soldier has completed his combat time and is eligible for rotation, he leaves his front-line company, goes to Service Company, where he is very likely to receive a duffel bag, partially filled with clothing and equipment.

Step 17. At the Division Replacement Company his bag will be filled with clothing and equipment of a varied quality and degree of serviceability.

Step 18. When he arrives in Sasebo, the check and inspections take place again, and some worn items may be exchanged for more serviceable ones.

Step 19. This step covers his movements back to the ZI—and what happens during it can be left to your imagination.

Step 20. At the port of disembarkation in the ZI he will probably be equipped with a new dress uniform, and sent to his new duty assignment.

IT is this final step—the soldier's last ZI processing station on his journey overseas and his first upon his arrival home, that should be retained. All the others can be eliminated.

Here is how it could be done.

Step 1. In equipping the soldier to depart his home station, eliminate the duffel bag and have him carry, at the very most, a full field pack, individual weapon, and an extra cargo pack as hand luggage. This full field pack would contain minimum essential items of equipment necessary for his cleanliness and protection from the weather.

Step 2. At the port of embarkation he would get clean clothing in exchange for soiled, on an item-for-item basis. He would be relieved of class "A" dress uniforms and related items. Let him ship out with only the gear he needs for comfort and health.

Step 3. In a staging area or replacement processing center, his load should be reduced to a light combat pack and the clothing he is wearing, plus a pair of extra socks and change of underclothing. He could be relieved of his hand luggage (that extra cargo carrier) at this station.

Step 4. At all processing stations en route to the front lines, provide only for the exchange of soiled clothes for clean, and a physical check of the essential items of equipment of a combat infantryman. Thus he will arrive at the front lines dressed to fight, and unburdened with a fat, swollen duffel bag.

The soldier's front-line company could carry an *extra stock* of all items of individual equipment, providing for a five to one hundred per cent exchange of each item, depending on the item. This would simplify exchange with the QM laundry and provide quick replacement of worn-out or destroyed items.

(This system was used in Korea and found workable. All webbing equipment and weapons were furnished from stocks accumulated when men were killed or wounded and their gear recovered.

Step 5. When the soldier returns to ZI, let him carry the same load or less than he carried over. When he gets to the ZI processing station it can fit him with a new dress uniform, ribbons, insignia, and complete wardrobe.

INTELLIGENCE CARD INDEX SYSTEM

(Continued from page 29)

(2) Too accurate recording was required.
(3) Too many jerks posing as clerks got into the act.

WE think our system is simple enough, and our topics broad enough, to take care of the first two objections. Decisions as to which hole to punch should be easy, and it doesn't take a PhD to know that to code the card for "7—Bridges," you punch out the hole marked "7—Bridges."

As for the third objection, we should be reasonably safe from morons if we confine the system to headquarters central files (corps and higher) rather than letting every company clerk punch away like a Pennsy conductor on Army-Navy game weekend.

Well, it's a far cry from the single satchel, but it sure beats hell out of the complete-file-in-each-office-every-man-for-himself system.

LOOK TO DEMOGRAPHY

(Continued from page 19)

with coolly scientific minds able to handle our tools of war. The Geiger counters, guided missiles, radars, and other complicated devices (like the electric potato peeler) will be manned by soldiers who can keep them operating.

Families seem to be getting larger, too. Three-bedroom houses are in more demand than they used to be; and the automobile industry reports more station wagons being sold every year.

Professional demographers differ as to whether the increase in size of families is apparent or real. Whether it is the "result of more first-births" or the "product of better nutrition manifesting itself in a high fertility rate," beats me and a lot of other people.

Whatever the reason, the "Net Reproduction Rate" (an indication of changes in family size) is going up:

1937	.980
1939	0.992
1940	1.023
1942	1.190
1944	1.171
1946	1.359
1948	1.462

POPULATION trends, therefore, will add wrinkles to the brow of Captain Jones—and his fellow company commanders, in two ways—changes in *quantity* and changes in *quality*. We can subdivide further into changes at national level and changes at the company, or this-is-where-I-came-in level.

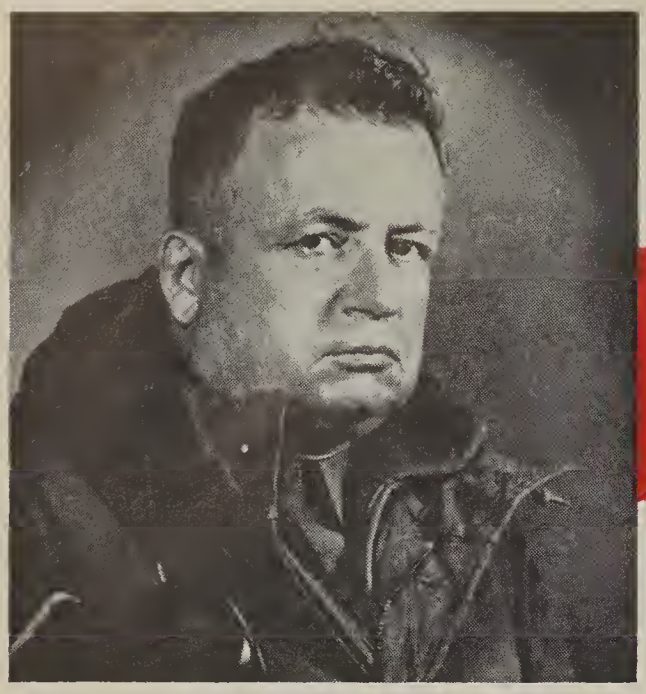
A lot of these "guesstimates" on projections of population trends, that we have talked about, are questions of national policy rather than of company policy. It's a cinch that Captain Jones can't do much about population trends. The National Resources Board has military membership to keep a service finger on the pulse of the bigger aspects of population changes.

But the results of national policies eventually wind up in the laps of the "Captain Joneses" of the Army. The demographers' graphs and calculations of today will show up for Captain Jones tomorrow.

A figure on an adding machine is a statistic. But when the figure reports in to you as a flesh-and-blood soldier—with a family, friends, ideas, hopes, and fears . . . needing clothes, food, ammunition and training—especially needing leading . . . the statistics come home to roost.

Can anticipating these problems help the company commander?

The demographers say they can.



S. L. A. Marshall writes a battle report which again proves that anything short of the highest standards of discipline and training makes the soldier's burden greater when he meets the test of combat.

THE RIVER AND THE GAUNTLET. By S. L. A. Marshall. William Morrow & Company. 395 Pages; Maps; Index; $5.00.

The Soldier Pays

Major General H. W. Blakeley

THE comments that follow on the effects that discipline and training or lack of these essentials of military success have on the soldier in combat are based on Colonel Marshall's excellent story of the defeat of the Eighth Army by the Chinese Communist Forces during the last few days of November, 1950 in the battle of the Chongchon River. In one sense, therefore, this is a book review, but in a more important sense it is a critique of combat operations that, I hope, may be helpful and constructive.

Colonel Marshall himself almost never fails to be helpful and constructive in his writings on military subjects. Neither he nor this book needs much introduction to regular readers of this magazine. One chapter of the book was published in the May issue under the title, "They Fought to Save Their Guns." General Marshall is said to be the chief editorial writer of *The Detroit News,* but he has also been, among other things, the Chief Historian of the European Theater in World War II, Operations Analyst with the Eighth Army in Korea, and the author of many official and unofficial military books. Among his current jobs is that of consultant for the Operations Research Office. It may well be that he has to introduce himself when he visits his newspaper.

His latest book is based on the technique of after-battle group interviews —a technique which Marshall did much to develop and one which tends to bring out combat facts with brutal clarity.

ONE basic fact about the Chongchon River battle did not need any interviews to establish it:

> Deployed in line to the south of the river, the United States Eighth Army was an open book. Its battle objective and hour of movement had been published to the world; war correspondents had described in intimate detail the strength and location of its forces. Concentrated in a tight maneuver mass, guarded by an entrenched screen, north of the river, the Chinese Communist Army was a phantom which cast no shadow. Its every main secret—its strength, its position, and its intention —had been kept to perfection, and thereby it was doubly armed.

American newspapers please copy. And politicians, editors, and columnists who have screamed about censorship and freedom of the press, read on as Marshall tells the story of heroism, death and suffering.

Lack of secrecy about the Army's strength and movements was not, however, the only cause of trouble for the fighting troops. The over-all picture was one of efficiency, good leadership, and courage, but throughout *The River and the Gauntlet* are incidents which reflect failures in enforcing discipline, in the making of firm decisions, in applying under the stress of combat the training lessons learned in garrison and in field exercises, and in constant supervision and inspection of the maintenance and condition of motor vehicles and all types of weapons.

Before going on to cite some specific examples, it is only fair to say that the officers and men involved were often tired, hungry, cold, shocked and in some cases wounded. It is much easier to be critical pounding a typewriter in a comfortable room than it is to maintain standards of discipline, maintenance, and training when someone is shooting at you.

LET'S take a look at conditions in the infantry company which was first to fight in the Chongchon River battle:

> All but twelve men had thrown away their steel helmets; the pile cap was better insurance against frostbite and the steel helmet wouldn't fit over it. Only two men—new arrivals—carried the bayonet. The grenade load averaged less than one per man. Some rifle and carbine men carried as much as two extra bandoliers or six full clips. Others had as little as sixteen to thirty rounds on their persons. About half of the company had dispensed with entrenching tools.

The shortcomings here are obvious. Steel helmets, as it turned out, were very definitely needed. Inspection and supervision by officers and noncoms would have assured that they were being carried. Ammunition loads should

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have been prescribed and frequently checked. It takes guts for tired company officers to do these things; the officer and noncom who set requirements and enforce them won't be popular; but the soldier will have a better chance when the enemy suddenly hits as he did in those November days in Korea.

Then there is the case of a noncommissioned officer who was sent to run a telephone line from the battalion CP to a company:

> He was given "heavy wire" instead of the light 130 which is useful on such missions. So he couldn't carry it over the hills and thereby take the shortest line between two points. Instead, he followed the waterline, and his wire ran out before he had covered two thirds of the distance. There his personal striving ended, and with that failure King Company, left alone in a great void, ceased to operate as the outpost of an army.

The whole story is of course not here. Who failed to provide proper communication equipment and alternate means of communication? Why did the sergeant end his "personal striving?" Why did the battalion commander and his staff officers accept the situation of no communication with a vital outpost? Perhaps no one failed; the fates may have ganged up as they did on everyone's efforts to warn Hawaii on the morning of December 7, 1941. But again there is no need to belabor the point; it takes constant effort to make things go according to the book; when they don't the soldier up front suffers.

Examples of superb leadership and of sorry leadership can be found throughout Marshall's book. Courage was not the main lack in the bad examples. Rather they stemmed from failure to enforce the simplest rules of local security, lateral liaison, and good use of ground. In one case the responsible officer seems to have been more influenced by the desirability of having soft ground to dig into rather than by the requirements of observation, concealment and fields of fire.

THE problem of training a unit so that it can react to the shock of a surprise attack from an unexpected direction is of course a complex one. It involves initial alertness to minimize the degree of surprise, good communications and their prompt use to get accurate information back to the various headquarters in the chain of command; the ability on the part of commanders from the squad on up to estimate the situation correctly, make prompt decisions and get orders out. As Marshall says, "Men and squads can topple one another just like a column of dominoes unless they react to the crisis with greater unity under the persuasion of strong leadership." The know-how of proper and prompt reaction has to be developed on the training field or the soldier pays in combat.

The number of weapon failures reported seems excessive even considering the extreme cold. The tired soldier doesn't want to clean and oil his weapon; the tired noncom doesn't want to make him do it; weapons will fail for reasons other than dirt and lack of lubrication but not often. Who pays? Marshall tells the story of a soldier almost face to face with Chinese soldiers. "He pulled the trigger of his M1; there was a soft click, but no explosion. He tried again with no better success; the shells ejected but they did not fire. (Probable explanation: the chamber needed cleaning.)" This soldier got away with minor injuries. Others in a like situation didn't.

Motor maintenance is a hard struggle in garrison: it takes all of the best efforts of drivers, motor sergeants, and officers of all grades when troops are in combat. A company was to be moved by three trucks in the Korean battle. Only one truck arrived, the others having broken down en route. Cold, the rough terrain, old age? More likely, a failure to conform to prescribed inspection routines. "The company arrived at the appointed ground one half hour behind time."

The night that the Chinese struck, one company commander faced a difficult problem. "The night was cold. The men had neither bedrolls nor overcoats. So the company was authorized to light squad fires. It was a mistake." It was an understandable one, but even after some indication of trouble came in, the squad fires were not extinguished. The company's position "would hardly have been better revealed had the ridge been floodlighted." As Marshall says later, "on the record, it is self-evident that these were good fighting men deserving of a much better fate."

At one stage of the battle, the issue rested on how long a lone infantry company could stand unaided in defense of a solitary hill. When a situation of that sort develops it is too late for battalion, regimental, and higher commanders to do much. The discipline and standards which the company officers and noncoms have established or failed to establish determine the outcome.

THE over-all outcome of the Chongchon River was inevitable. As one corporal said: "Our error was that we had too few men, too few automatic weapons, and too much territory." As Marshall says of an attempt to slow the Chinese advance by committing the Turkish Brigade: "It was like applying an aspirin bottle cork to the bunghole in a beer barrel." All this inevitability of defeat doesn't alter the fact that military readers of this book, and particularly junior officers, can hardly fail to be impressed with the seriousness of their responsibilities in maintaining the highest standards of discipline, training and maintenance of vehicles and weapons.

These comments have highlighted the failures. The book has more examples of things well done and some heart-warming stories. One example: A badly wounded lieutenant limped forward to see what was holding up traffic in a narrow pass. He soon found the trouble. Two riflemen were half-carrying, half-dragging a third who was shot through both legs. The lieutenant told the soldiers to get off to the side to let the column pass. There were high words (perhaps low words would be more accurate) and one of the soldiers threatened to shoot the officer. The lieutenant, pistol in hand, enforced his order, and then stayed with the men in the ditch while he urged the column to double-time by him. One of the riflemen said to the lieutenant: "I was wrong. I beg your pardon." Everyone shook hands all around and the wounded man said: "I feel better already."

It is unfortunate that the maps accompanying the excellent text of this book are of little help. In most cases they lack scales, orientation arrows, and place-names essential to the easy following of the narrative. Perhaps it is just being old-fashioned to object to the fact that the author follows the growing custom of referring to an infantry company as, for example, Baker Company, 9th Regiment instead of Company B, 9th Infantry: or to an artillery battalion as the 17th Battalion instead of the 17th F.A.

He does not of course use "shrapnel" when he means shell-fragments (see "Shrapnel, Semantics and Such" in the JOURNAL of March 1952 for the details of this argument) but he does like "shard" for the same purpose. Immediately available dictionaries say that "shard" means "the hard wing cover of a beetle," but one of the JOURNAL's erudite editors reminded us of Kipling's "reeking tube and iron shard." A look at an unabridged dictionary confirmed that General Marshall is as accurate as a semanticist as he is as a historian.

ERRORS IN OBSERVERS' REPORTS

All men have a built-in tendency to misconstrue what they see, so the mistakes of observers are not so much to be criticized or ridiculed as they are to be considered as lessons to be learned

CAPTAIN BALLARD B. SMALL

AFTER being processed by evaluators, information reports of front-line observers are for the use of commanders in making tactical decisions and, therefore, they should be strictly accurate. But observers are human beings and, like all of us, make errors. It is interesting and instructive to look at some examples of the natural inaccuracies of human perception and see how trained men, despite effort and honest intent, sometimes make incorrect observations.

One cause of errors is the urge to rationalize. The mind tends to fill in imperfect perceptions of the senses so as to complete the mental picture. We know what happens when each member of a group is asked to make a report of an action they have all seen. All will usually differ widely even in the most basic facts of what happened. The solution to errors of this kind is found in training and practice. It is also helpful if the observer is made aware of his own built-in tendency to misconstrue what he sees.

Suggestion in the form of wishful thinking, fear, or similarity of events to some previous experience makes observers draw conclusions directed toward, or influenced by these conditions. For instance, at night, because of influences such as fear of the dark, inability to see —fear of the unknown, really—and the use of the less objective sense of hearing rather than vision, unsophisticated observers frequently are convinced of facts that are beyond possibility. An instance of this occurred in Korea. During the months of December 1951 to April 1952, the 2d Infantry Division held a front in the central part of Korea. Part of the defensive positions were two small outposts astride the improved road which ran from a nearby city northwestwardly to another town in enemy territory. Late at night for several nights following the initial occupation of the position, small CCF patrols were reported to be walking south down this road between the outposts, accompanied by some wheeled object which varied as to identity, depending upon the reporter. Sometimes it was a Soviet type heavy machine gun and sometimes a "honey wagon pulled by oxen." Exactly what this squeaking noise may have been was never determined, for after a few nights the sounds ceased. At any rate, it is certain that no tracks were ever found on the roadway. Probably each of these reports, following the first one, resulted from suggestion based upon the first night's report. It is likely that even the first report may have been in error in describing the sounds as those made by wheels. It is even possible that there were no sounds except those made by patrols of enemy soldiers.



Messages get mixed when passed from ear to ear—so keep 'em simple

THERE is an additional point here—that is, the influence of the new and the unknown. Errors because of novelty are extremely frequent. At about the same time (December 1951) portions of the 2d and 3d Battalions, 23d Infantry Regiment, engaged in a small fire fight among themselves because of unfamiliarity of one battalion with the ground to their front. A patrol from the unit on the right was mistaken for an enemy group when it was heard moving south as it returned from its reconnaissance. It most certainly could not have been that the front-line company had not been informed of the departure of the friendly patrol, since patrols were planned several days in advance and the publication of a written plan was required to be distributed throughout the regiment before any patrol was approved. Fortunately no serious casualties resulted before this "error" could be stopped by observers who could see both groups.

Another example of error due to novelty occurred when a rear OP was manned by a new observer for the first time. He came very close to requesting authority to fire friendly artillery on an equally friendly outpost position because of unfamiliarity with the ground location of the post, although he had been

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informed of its map location. Of course, the mission would have been caught by the artillery S3 as within his "no fire" line, and would not have been cleared, except that he *could* have made an error, too. The interesting thing about this error was that the observer first became suspicious that the position was friendly when he saw the poor cover and concealment discipline. Only Americans could be that careless, he thought.

ON another occasion, a new observer was placed on an old OP well behind the MLR and because of his unfamiliarity with a peculiarity of the ground form to his front, he ascribed the wrong coordinates to a sighting. The observer was located on a high hill some 1,500 yards behind the MLR, but since his elevation did not permit him to see a break in the terrain between his sighting and the MLR, he concluded that the action was occurring well behind the MLR, and reported that an enemy group had infiltrated friendly lines, penetrating to a point he decided was near the motor pool of one of the infantry units. His report caused some concern because a high credibility was given it in view of the fact that he gave a running account of the action which he was witnessing. The enemy was actually on a hill 300 yards in advance of the MLR and being observed and reported by a friendly observer down on the main line. It was from this observer's report that the matter was straightened out, for the two reports coincided in specific instances.

Getting proper orientation from the observer being relieved or the unit S2 before taking over, is the only solution. The S2 should visit every OP position before it is occupied and periodically thereafter so that the briefing of observers and the interpretation of their reports can be accurate.

Another source of error is often noted in the transmission of messages which involve handling by more than the originator and the addressee. You have the old game of "telephone" in which a simple statement is whispered to successive persons and the final message compared to the original. The same thing happens in war, so it is good to keep messages simple and their routings uncomplicated.

A humorous example of an error of this sort occurred in the 2d Division during February 1951. At that time two different UN units were side by side (both were attached to the 2d) and facing a large mountain. At 1630 hours on this particular day, an American artillery observer made a sighting of four enemy in white snow suits moving south down a trail at certain coordinates on one of the ridges leading to this large mountain. If the report were given completely, it also stated, I believe, that these enemy were carrying a 55-gallon drum hung by ropes or wires from a single pole. This information was duly logged and passed on to "higher headquarters." At 2030 hours, intelligence channels



A battle fought for nearly an hour against a cache of gas drums

were startled by a report from one of the non-U. S. units that four parachutists had landed on the mountain. When an attempt was made to check back to the source, it was found that the origin was somewhere in the organization of the other non-U. S. unit. When finally ironed out, it appeared that the event occurred at 1630 hours and had "originated" from the Americans. White suits —parachutes? Who knows exactly the similarity of words in the three languages or even the route of the report before it got to an evaluator who checked it out, but it is just further evidence that intelligence must never "believe" any single report unless it has been confirmed by at least one *independent* source.

THE story of the "Pirates" and the tank fighter is another perhaps unfortunate error due to weak links in the communications chain in addition to faulty initial observations. It was reported that the tank company of this particular regiment, newly committed in that particular sector of Korea, had engaged an unknown number of enemy tanks in a moderately severe action up a draw to the northwest from the center of the friendly position. A check by telephone revealed that friendly tanks had received at least three rounds of enemy fire with no damage and had claimed one enemy tank hit and another possibly hit. The coordinates given were inspected by an officer and he noted that the valley in which the enemy tanks were reportedly maneuvering had only one entrance and that opened to the south. The precipitous slope to the north made it necessary for the tanks to have entered the valley under the very noses of several thousand American troops at some time previously. The possibility of this was very unlikely and since the action being reported was occurring near dark, the officer suggested to one of the new regiment's staff officers, that perhaps an error was being made. The response was somewhat less than insulting, but clearly indicated that the advice was absurd in view of the fact that a battle was in progress. The possibility of tanks hiding up in the valley for a period of several months or carried over in parts to be assembled under our very noses and several other devilish Chinese schemes began to pick at the mind but could only be rejected as highly unlikely. When the engagement finally drew to a close, it was decided to dispatch a foot patrol into the valley to inspect the damaged enemy tank. Before this tank inspection patrol was sent out, a telephone call to the "Pirate" tank company inquiring about the details of the fight, elicited the communiqué: "Any information concerning the engagement will have to be obtained in the regular channels from the regiment." Aha! imagine a soldier not bragging after a fight? Right! When the foot patrol reached their objective, they found several 55-gallon gasoline drums, and no indication of any tank tracks. A battle nearly an hour long, including reports of incoming enemy tank fire and an enemy tank even hit, was recorded in some detail—and all completely false.

ALL errors arise from the common source of human nature. They cannot be prevented, but they can be nullified by a system of cross checks which will make their consequences ineffective. In practice you must be prepared to accept certain probabilities of error in factual judgments, just as even the best manufacturing processes will have a certain number of rejects. The problem is to keep the number of "defectives" down to the point where you can throw them out and still make money.

The New Defense Team

(Continued from page 9)

the issue of the legal authority of the Secretary of Defense. In almost every case Mr. Lovett would conclude his description of the problem with the laconic statemcnt that in his opinion the Secretary of Defense did have the power that was disputed. The Rockefeller Committee that recently studied the Department's organization came to the same conclusion: the Secretary of Defense did have "complete and effective control" over all military agencies and departments. But it suggested that clear and unmistakable laws granting the power would stop the antics of the "legal beagles" Mr. Lovett complained about in his letter.

The retiring chairman of the JCS, General Omar Bradley, who knows a great deal about the political pressure and political criticism that can be directed at military men in high office, spoke some words of wisdom a few months ago that now seem to be directed at his successor—and at all critics of highly placed "brass":

"Generally, however, I do not feel that it is the Joint Chiefs of Staff responsibility to recommend specifically which course of action the Government should take. We should confine our part to pointing out the military implications and military capabilities. Then, of course, after a decision is reached, we make recommendations on the military action required to carry out such decisions. No matter what the decision becomes, once it is made we do our utmost to carry out the military responsibilities which it involves.

"Perhaps some people might feel that the Joint Chiefs of Staff should stand up and resolutely and strongly recommend a national policy which we would prefer, but to date I have not been convinced that this is the proper role of a military leader. I do not believe that military strategists should choose the course of government action; and I do not believe that we should publicly, or before Congressional committees, fail to support the decisions made by our civilian superiors."

There is evidence that the civilian team in the Pentagon does not intend to ask military men to go beyond that point or intend to abdicate in favor of military men. Indeed its first four months have been marked by a series of strong and almost autocratic directives that, in the words of General Vandenberg, were the cause of the "greatest amount of uncertainty and confusion" in the armed services since the end of World War II demobilization.

But there is also evidence that some of these out-of-hand directives by the new team were not intended as permanent restrictions but were issued to slow things down while the new men got their feet on the ground. The most stringent of them have either been eased or their impact softened by the announcement that the Department of Defense would reconsider or perhaps readjust the programs they had so abruptly brought to a halt.

"Civilian control" if it isn't conscious of its exacting responsibilities can be unsatisfactory and even dangerous, too, as Mr. Walter Millis recently pointed out in *The New York Herald Tribune.* Speaking of the unsatisfactory report of the ammunition investigation by the Armed Services Committee, Mr. Millis wondered out loud "where the great principle of 'civilian control' is going to lead us, if the civilians are as helpless as these Senators seem to have been to make any useful or constructive criticism of the intricate processes of military planning which they set out to 'investigate' . . . if this is the best the politicians can do, who is really going to review the military plans and operations? Simply to chant 'civilian control' is obviously far from enough."

Mr. Wilson and his team are not simply "chanters." They are doers who are working hard and learning much. If they can drive true furrows with their three bottomed plow through the rocky and treacherous world we now live in they will deserve great credit. One of the most typical members of that team, Mr. Roger Kyes, the Deputy Secretary of Defense, recently made an observation that the team itself could well mull over:

"Though your Department of Defense is the largest organization in the world, it has only a handful of men whose abilities, knowledge and experience approach the requirements of such a task."

The press said that statement was a criticism of the brass. Our reply is that it is also a challenge to the man who said it.

INCONSISTENCIES IN SENATORIAL REASONING AND PENTAGONAL BYWAYS AND BLIND ALLEYS

MR. MILLIS, who observed that the ammunition investigation was a sorry example of "civilian control" also made some other cogent observations about it in his newspaper, *The New York Herald Tribune.*

He demonstrated that the subcommittee's most explosive finding—that there had been a "needless loss of American lives" in Korea—was the product of twisted reasoning.

"The finding is sustained," he wrote, "by a very general argument to the effect that the more ammunition you shoot the less the enemy is likely to operate and therefore the fewer lives will be lost. But here is a basic inconsistency. If, as the subcommittee suggests, it was a want of ammunition which contributed to adopting a 'sit-down' war strategy, then lives were actually saved as a result, rather than expended on the big offensives which might otherwise have been adopted."

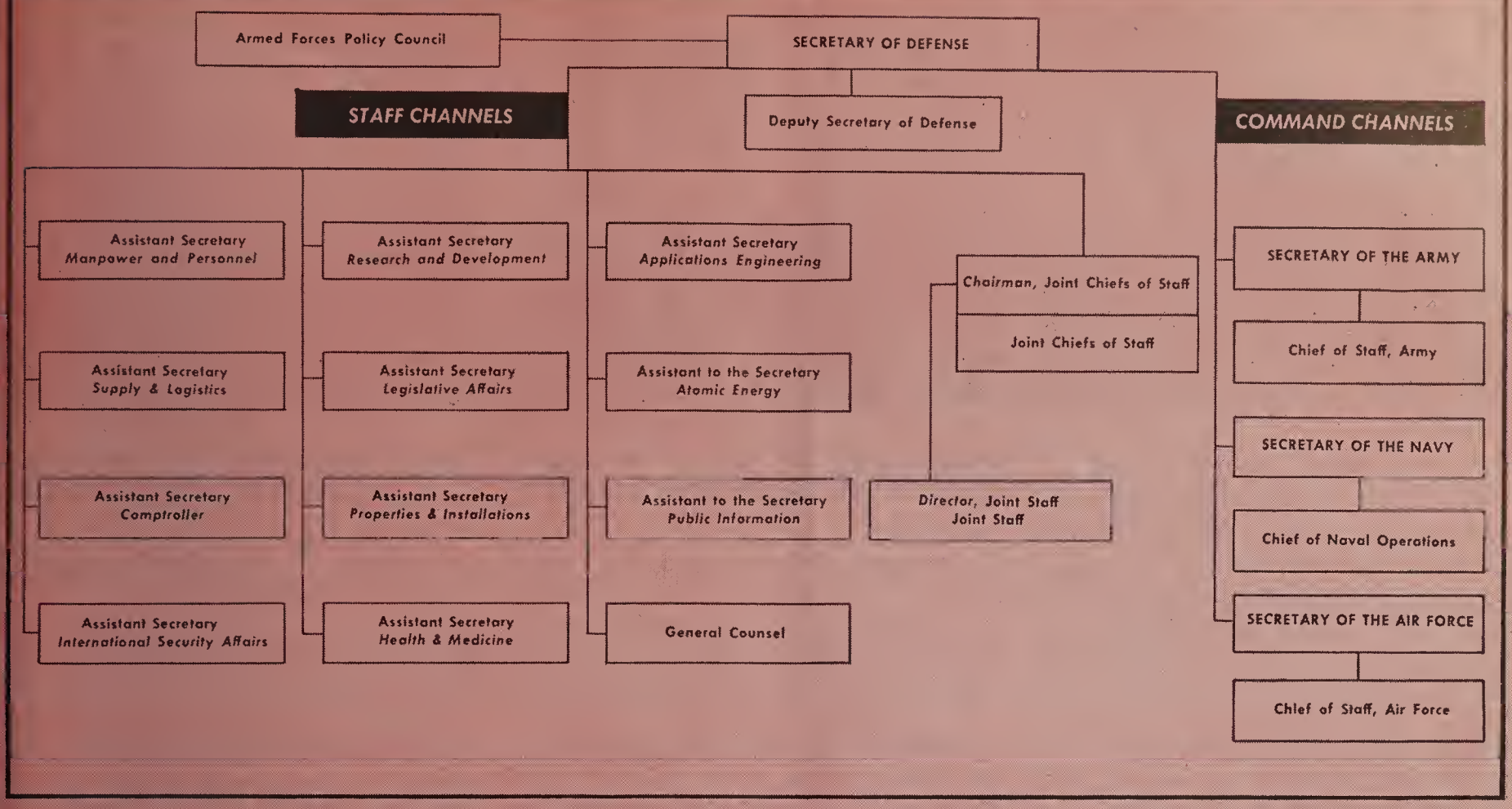
The most instructive lesson brought to light by the investigation received only cursory comment by the subcommittee. It is this: there is a real and pressing need for a thorough re-examination of the organizations of the Department of Defense and the Department of the Army at the levels of the general staff and the offices of the chiefs of technical services, and the procurement laws that control the placing of orders for all munitions of war. Undoubtedly the examination should be extended to comparable levels in the Navy and Air Force.

This needs to be done not because the interests of the hard-pressed taxpayer are not properly protected or because slovenly work is performed at these levels. Not at all. It needs to be done because so much over protection has been built in that efficiency and economy and the best interests of the United States suffer from a suffocating blanket of researchers, checkers, audi-

(Continued on page 40)

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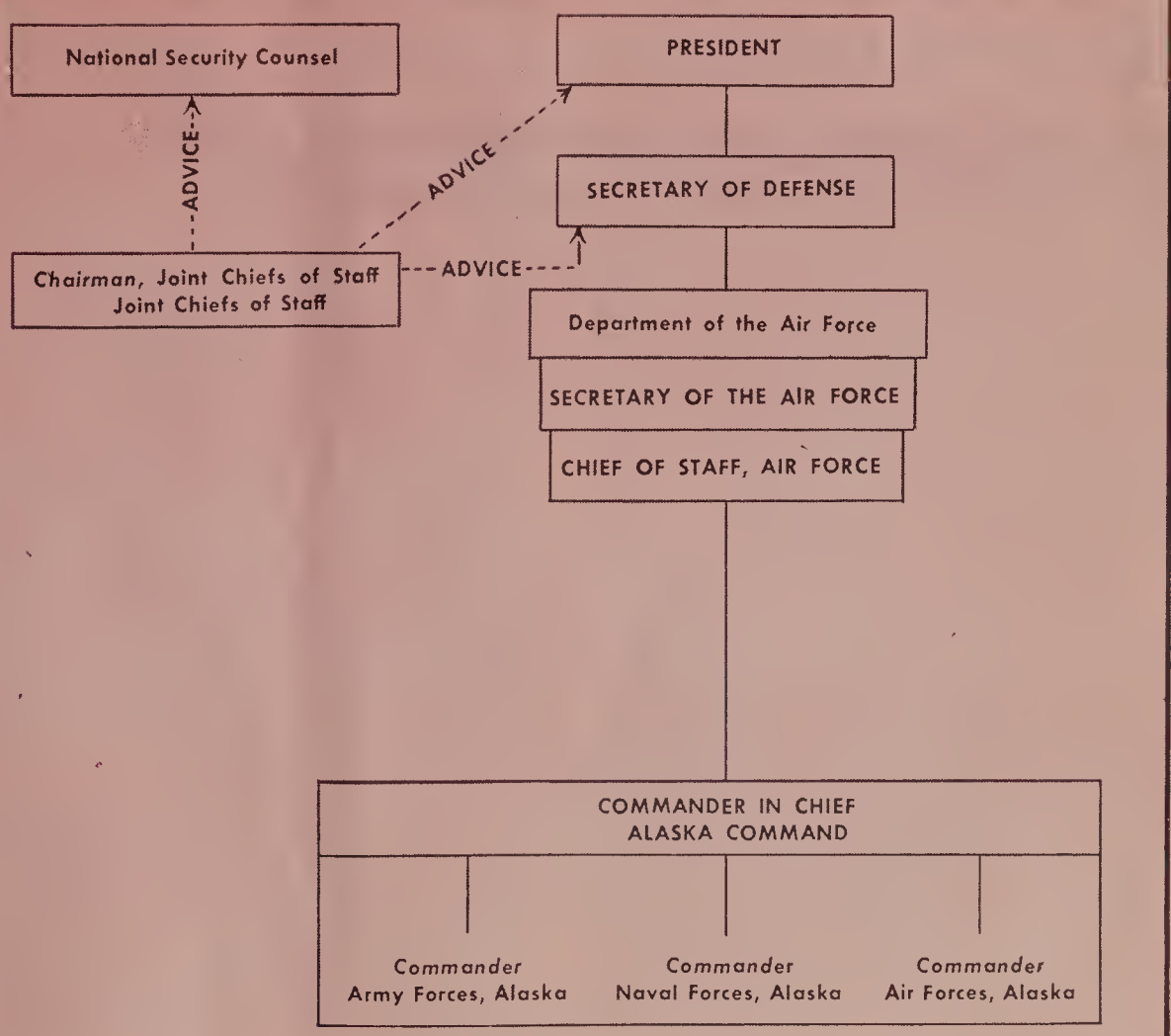
STAFF AND COMMAND OF THE DEPARTMENT OF DEFENSE AS PROPOSED BY PRESIDENT EISENHOWER



GENERAL EISENHOWER'S REORGANIZATION OF THE DEPARTMENT OF DEFENSE IS LARGELY EXPLAINED in these two charts. The top one shows that the Secretary of Defense will have a much larger staff of civilian assistants—13 altogether. Each will have a specific area of responsibility except for the Deputy Secretary who is, of course, the Secretary's right-hand man. The Chairman of the Joint Chiefs of Staff will have added power and prestige and the personnel and projects of the Joint Staff will be largely his responsibility rather than the responsibility of the Joint Chiefs of Staff as a body. The combination of more assistant secretaries and enlarged responsibilities for the Chairman, JCS, will probably result in more centralized direction of unified activities rather than the "farming out" of projects to the staffs of the three subordinate departments as has been largely the practice in the past few years.

Command channels move from the President through the Secretary of Defense to the Secretary of the service concerned and directives are issued by the Chief of Staff of that Service "By direction" of the Secretary. The chart (right) using the Alaska Command as a typical example, shows this line of command. Because the Alaska Command is the responsibility of the Air Force, the chain moves through the Air Force Secretary and Chief of Staff. For the Eighth Army the chain would go through the Department of the Army to General Clark in Tokyo and on to General Taylor. For Iceland it would go through the Department of the Navy to the Commander in Chief, Atlantic Command, and on to the Commander, Iceland Defense Force. This reorganization was made by General Eisenhower in an Executive Order which will become effective on 1 July unless Congress takes steps to nullify it, which is not considered likely.

THE CHAIN OF COMMAND TO THE FIELD



Inconsistencies

(*Continued from page 38*)

tors, inspectors, and other gentlemen handy with blue pencils, slide rules, regulations and law books. That seems to be a clear and fair comment in the light of evidence produced in the investigation of ammunition stocks.

All of this is inevitably remindful of Mr. Robert Lovett's puckish comment that a "long-overdue" reorganization of the Army's technical branches "would be no more painful than backing into a buzz saw."

It was highly quotable and you could hear it all over Washington—and probably the nation. A large number of the congressmen, journalists, bureaucrats, plain citizens and combat soldiers who related it with great relish would have been hard pressed to name all of the seven branches he had in mind, much less describe in any detail the nature and extent of the services each performs for the Army that fights.

It would have been far better if, having got off the mischievous comment (in which there was little or no malice), Mr. Lovett had spelled out the troubles he had in mind—and surely the cause for the ammunition shortage which had been plaguing him for months was one of them. But what he failed to do the subcommittee has done in part—but now threatens to drop and thus muff its opportunity. If such a study needed to be done when Mr. Lovett was in office, there is much greater need now that the Department of Defense has larger responsibilities and greater power. Some duplication has always existed since unification but it will be greater than ever if something is not done to clarify methods and procedures. A year or so ago a General Staff colonel observed that his office was at wits' end from preparing involved and difficult plans and programs which were sent up to the Secretary of Defense where they were reworked and re-planned. "We have about reached the point," he said wearily, "of saying to hell with it, DOD will tear it up anyway."

Fortunately, and to the credit of most of those who labor in the Pentagon, wearied resignation is not a common trait in that mammoth labyrinth. But certainly where roadblocks, cul-de-sacs and booby traps harass and impede honest, hard-working men, weariness and resignation can not be too far behind. High spirits and the feeling that useful work is being performed are as necessary in a General Staff or technical procurement officer as in the combat soldier. Criticism and quotable comments don't help a bit. And they can in time destroy what is essentially a sound and vigorous organization that merely needs to have its purposes clarified and reaffirmed to get back on the track.

DEFENSE BUDGET: GENERAL EISENHOWER TAKES 9.4 BILLION DOLLARS OF CALCULATED RISK

THE cry raised over the reduced defense budget proposed by the Eisenhower team would have been shriller if the final stamp of approval hadn't been put on it by General Eisenhower, a professional military man familiar with military requirements and military budgets and how they are made.

The fact is that budget making in a warring world is essentially a matter of taking calculated risks on a grand scale. Absolute security can't be bought at any price. General Eisenhower recognized this in his broadcast on his tax program when he said: "It is also a fact that when we seek anything less than this vision of military perfection—total mobilization—we are debating in a realm of speculation—sometimes informed, more often uninformed."

Secretary of Defense Wilson was more positive, but also inconsistent. In a statement to a House Appropriations subcommittee he said:

"During the summer and fall of 1953, it is planned to take a new look at the entire defense picture. This will involve an intensive and detailed study of all aspects of defense—forces, missions, weapons, readiness levels, strategic plans, etc.—and will provide the basis for the fiscal year 1955 budget."

But a few paragraphs farther down in the same statement he seemed to have forgotten about this planned look-see:

"We recommend this revised military program to you because we believe it will result in a proper balance between defense needs and the ability to maintain a sound economy. It represents a policy that should continue to be sound and livable over a period of years. . . ."

Neither the Joint Chiefs of Staff as a body nor the individual chiefs of the services had an opportunity to study and comment on the revised budget before it was approved by the President.

The Army (*see below*) and the Navy are taking the budget cuts in good spirit while the Air Force, encouraged by the numerous pro-air power enthusiasts in Congress, shows every indication of preparing to fight for a restoration of at least a part of the $5.81 billion that was cut from the Truman-sponsored budget for the Air Force.

The Army Budget

OF the new Army budget, Gen. J. Lawton Collins said: ". . . we are not completely satisfied and we can never be, for the potential foe we face is of unpredictable intent and ruthless power. The bulk of his power is concentrated in the world's largest armies equipped with more than 40,000 tanks."

And where does the U. S. Army stand now? General Collins said:

> These past three years have been unique in American military history. Never before have we been mobilizing, fighting a war many thousands of miles from home, and demobilizing all at the same time. Never before have we reorganized a field army in the face of the enemy, all the while maintaining a high degree of combat effectiveness.

Despite these difficulties, we have made substantial gains.

In 1950 we had 593,000 men; we now have 1,500,000. We then had 10 combat divisions, 9 of which were under strength; we now have 20 combat divisions, 18 regiments or RCT's and more than twice as many antiaircraft battalions as we had at the outbreak of the Korean war.

In 1950 we had only 5 training divisions to turn out replacements; we now have 10 training divisions and, in addition, 14 replacement training centers. We have produced over a million basically-trained men since the beginning of the Korean war.

We are now graduating 4 times as many company grade officers in our schools as we were three years ago.

We have trained and equipped a Republic of Korea Army of some 460,000, starting from a nucleus of only 25,000.

We have greatly increased our productive capacity, moving to within 50 per cent of our goals for expansion in both Army and private industrial facilities.

We have also made splendid strides in our program to help defend the

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United States by helping our friends and neighbors to defend themselves. The Army has shipped approximately 5 million measurement tons—about three quarters of the total Mutual Security shipments made by all services—since March 1950. The Army MSA shipments have included: almost 25,000 tanks and combat vehicles; more than 65,000 radios and radar items; almost 25,000 pieces of artillery; more than 130,000 motor transport vehicles; almost one and one-half million small arms and machine guns.

All of this is in addition to the 25 million tons of supplies shipped to Korea.

At the same time we have been fighting a war 5,000 miles from home, and together with other U. N. forces, we have destroyed one set of communist armies and badly mauled another.

(All figures in billions of dollars)	Carry over from previous appropriations	"Truman" Budget	"Eisenhower" Budget	Estimated expenditures "Truman" Budget	Estimated expenditures "Eisenhower" Budget	"Truman's" Budget over "Eisenhower's"
Army	**17.06**	**15.4**	**13.67**	**17.4**	**16.5**	**1.73**
Navy	**16.86**	**12.0**	**9.65**	**12.5**	**11.0**	**2.35**
Air Force	**28.48**	**17.5**	**11.69**	**17.5**	**15.1**	**5.81**
Interdepartmental activities	**.24**	**.6**	**1.03**	**.6**	**.6**	**—.43**
Totals	**62.64**	**45.5**	**36.04**	**48.0**	**43.2**	**9.46**

And what are the prospects? General Collins reports:

During fiscal year 1953 almost 750,000 men left the Army which also trained almost an equal number of new recruits. This figure is half the total strength of the Army.

In fiscal year 1954 the Army will stay at the present level of 20 divisions, 18 regiments and regimental combat teams, more than 100 antiaircraft battalions, and more than 150 combat battalions.

But the military strength will be reduced by the end of the fiscal year (June 1954) to 1,423,000. And if combat in Korea ceases, "present plans call for a further reduction of 51,000 in Army strength during FY 1954."

During FY 1953, 337,000 replacements were sent to Korea and since June 1950, more than a half million men have been returned from the Far East. "If the current Korean deployment is maintained and rotation criteria remain substantially as they exist today, the personnel strength provided in this budget is considered to be barely sufficient to support a continuation of combat rotation from Korea."

"We must rebuild our units here at home during the first three quarters of FY 1954, and attempt to attain an acceptable level of readiness for combat."

This must be done in the face of the known situation that our trained manpower situation will reduce the effectiveness of our unit training programs.

During FY 1954 we plan to operate 7 replacement training centers and 7 training divisions to conduct 16 weeks of basic training for 338,000 of the inductees and enlistees we expect to receive. And for the specialists and technicians we will need, we propose to conduct approximately 500 courses at 58 service schools. These schools will train large numbers of specialists for the Infantry, Artillery, Ordnance, Signal Corps, Engineers, and other branches of the Army. Specifically, during FY 1954 we expect to enroll a total of 238,000 students in our schools system, in courses ranging in duration from 4 days to a year or more. It is imperative that we train this large number of specialists so that we will have replacements for the trained personnel we will lose because of expiration of terms of service, battle casualties, and other reasons.

Procurement-wise the Army will continue its modernization program with new tanks, guns, guided missiles, helicopters and light aircraft being delivered. Some 17 billion dollars of unexpended funds will be used to pay for such equipment as it is delivered. In addition about 25 per cent ($4.5 billions) of the current budget is for the financing of more "hardware."

THE NEW JCS: A RE-EXAMINATION OF ITS CONTINUOUS, EVERYDAY TASKS?

KEY West, Fla., and Newport, R. I., were, in 1948, the scenes of truce talks that in their way were as famous as Panmunjom is today. It was at those two places that the late Mr. Forrestal had the Joint Chiefs of Staff hammer out the details of roles and missions of the armed forces in an effort to achieve the unification the law called for.

Since that time there have been some mighty battles fought inside and outside the conference rooms of the Joint Chiefs of Staff over roles and missions, but the bitterest battles occurred in the first couple of years. In more recent months such thorny problems as strategic bombing, Naval aviation, the size and function of the Marine Corps, as well as who has which guided missiles, and the effectiveness of Air Force close support aviation, have been quiescent. Other problems that have come up have been solved quietly. For example only last year the Army and Air Force worked out an agreement, signed by the respective secretaries, giving Army Aviation an enlarged role.

That the need for a re-examination of the roles and missions of the services isn't visible to those not privy to the innermost operations doesn't mean that there aren't good reasons for the one the new Joint Chiefs of Staff is going to undertake. But it seems to conflict with the everyday duties of the JCS.

The Secretary of Defense has said that the re-examination will be an "intensive and detailed study of all aspects of defense . . ." and this will of course serve as an orientation course for the new members.

But examination of "forces, missions, weapons, readiness levels, strategic plans, etc." would seem to be a continuing task of the JCS and the very reason for its existence. It is difficult to believe that all of these have not been under continuous consideration by the JCS and will continue to be even after Mr. Wilson's re-examination is concluded.

WHAT'S DOING: NEWS OF SIGNIFICANCE FROM FORT MONROE AND FORT SILL

ARMY FIELD FORCES

Consolidated Training Programs

A common and uniform training program that will prescribe the training for units of the Regular Army, National Guard and Army Reserve has been devised by Army Field Forces, which has also prepared a pilot model of an "all-component" program for the guidance of Army schools, training instructors and commanders.

Most subjects listed in the training programs will apply to all similar units of all components. However, adjustments will have to be made to fit programs to training hours because Army Reserve and National Guard units have from 48 to 24 drill periods a year plus two weeks of summer training compared to the Regular Army's year-around schedules. To make these adjustments the time allotted to each subject will depend upon the number of drill periods of the unit concerned. Unit commanders of civilian component outfits are allowed considerable latitude in adjusting programs to local conditions.

Advantages of the consolidated program are obvious. Standards and objectives will be the same and the work load on service schools which prepare training programs will be lessened. Reserve commanders and staffs will be familiar with the programs used by the Regular Army should mobilization become necessary. There will also be savings in the cost of publishing the training programs.

The common program was made possible by the growing stability of Army Reserve and National Guard troop programs and the increased availability of equipment used in training.

THE ARTILLERY SCHOOL

New Radar Power Units

A new power unit, the PU-269, will soon replace the present PU-26/U currently used by countermortar radar sections. Mounted in a towed 1½-ton trailer, instead of the presently used ¾-ton truck, the improved power unit will use a conventional battery starting system in lieu of PU-26/U's magneto system. Reels are mounted on front of the trailer for stowage of cables used with the equipment.

Fire Adjustment Pamphlet

A new pamphlet, entitled "Fire Mission," is presently under review and comment by TAS departments and should be ready for wide distribution in the near future. Its purpose is to illustrate for the individual combat soldier the minimum basic procedures required for obtaining and adjusting artillery fire. The extensive use of illustrations and its simple, direct manner of presentation should stimulate a greater interest in artillery among combat men of all branches.

REUNIONS

1st Armored Division. 28-30 August. Shoreham Hotel, Washington, D. C. For details write: 1st Armored Division Assoc., 1529 18th St. N.W., Wash., D. C.

3d Armored Division. 23-25 July. Milwaukee, Schroeder Hotel. For details write: Secretary, 3d Armored Div., 80 Federal Street, Boston 10, Mass.

4th (Ivy) Division. 27-30 August. Philadelphia, Bellevue-Stratford Hotel. For details write: Silvio D'Anella, National President, 752 So. 8th St., Philadelphia.

8th Armored Division. Bellevue-Stratford Hotel, Philadelphia. 3-5 July. For details write: Henry B. Rothenberg, Room 1008, 33 N. LaSalle St., Chicago 2.

24th Infantry Division. St. Louis. 14-16 August. For details write: J. Peyton, 131 N. Culver St., Baltimore.

27th Division. 9-10 October. Syracuse, N. Y. World Wars I and II. For details write: National Headquarters, 27th Div. Assoc., Box 1403, Albany, N. Y.

30th Infantry Division. 20-22 August. Raleigh, N. C. For details write: CWO James B. Liles, P.O. Box 791, Raleigh, N. C.

37th Division. 5-7 Sept. Mayflower Hotel, Akron, Ohio. For details write: 37th Div. Headquarters, 21 West Broad Street, 1101 Wyandotte Building, Columbus 15, Ohio.

75th Infantry Division. Washington, D. C. 14-16 August. For details write: John D. McBurney, 5822 E. 14th St., Kansas City, Mo.

83rd Infantry Division. Hotel Hollenden, Cleveland. . 20-22 August. For details write: Headquarters, 83d Inf. Div. Assoc., 1435 Clark Street, Pittsburgh 21.

94th Infantry Division. Hotel New Yorker, New York City. 23-26 July. For details write: Bernard Frank, Reunion Chairman, Commonwealth Building, Allentown, Pa.

Artillery Paradrop

The 457th Parachute Field Artillery Battalion recently conducted a demonstration drop of a parachute field artillery battery.

Preceding the demonstration the battalion presented a static display of personnel and equipment used in the drop. Included were artillery loads rigged for heavy drop, pathfinder equipment, rigger equipment, tactical air control party (TACP) equipment, fully equipped representatives of the firing battery, TACP, and pathfinders; and typical loads in the C-122 and C-124 aircraft.

The drop itself was conducted as a tactical problem. Tactical air strafed and bombed targets in and around the drop area. Pathfinder personnel dropped to mark the drop zone and heavy drop of four 105mm howitzers, prime movers, ammunition loads, and extra vehicles followed. The men of the battery followed the heavy drop into the DZ. During the problem the TACP called in tactical air to cover the reorganization of the battery and directed the air strike. The battery fired a forward observer mission as soon as it was laid.

During the problem a C-122 aircraft made a tactical landing to resupply the battery and evacuate wounded men and prisoners.

USAR School Exams

Comprehensive yearly examinations covering subjects presented by USAR Schools during the training period ending 31 August 1953 are en route to field artillery branches, and will be in the hands of users well before active duty training phases scheduled for July. No time has been allotted for the four-hour examinations in the program of instruction; however, instructors may administer them at the completion of the active duty training or upon return to home stations.

Assembly and packaging of field artillery instructional materials for the USAR School year commencing 1 September 1953 has begun at TAS and shipment will be made in time to be delivered by 1 July. Complete instructions on the use of the material will be contained in a program of instruction booklet to be shipped under separate cover in advance of the material itself. USAR School representatives attending the annual orientation course at Fort Sill in July will get a further briefing on the 1953-54 instructional material and accompanying training aids.

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★ BOOK REVIEWS ★

THE GERMAN GENERAL STAFF

HISTORY OF THE GERMAN GENERAL STAFF, 1657-1945. By Walter Goerlitz; translated by Brian Battershaw. Frederick A. Praeger, Inc. 508 Pages; Illustrated; Index; $7.50.

During the almost three centuries that elapsed between the Teutonic dictatorships of Frederick and Hitler, Prussian-German history was dominated, and in a real sense made, by the General Staff. In both the elation of victory and the despair of defeat the subtle but powerful hand of the "Great General Staff" lay heavily on the tiller of the Prussian, and later the German, ship of state.

Walter Goerlitz, author of *History of the German General Staff,* and one of the more prominent postwar German historians, has produced a book that should be of deep interest to military readers. Dr. Goerlitz sheds added and needed light on the long but certain process by which the General Staff achieved a position of primacy within the governmental structure, and brought about Prussian-German dominance in the continental European power arena. Of even more importance, this book helps one understand how the ostensibly efficient German General Staff was not only the instrument of Germany's victory, but also the unwitting architect of her disaster.

The author conveys a better understanding of the strength and weakness of the German staff system by emphasizing the personalities of the guiding figures of German staff history. That this proves to be a highly effective device is probably due to the simple, but all-too-often forgotten, fact that any organization—political, religious, or military—is a reflection of the character of those who create and direct it.

One thing this book does is to help explain the process by which the Great General Staff, the staff for the Army, achieved position and power that gave it, in practice, what amounted to at least an indirect policy control of the German Navy as well as the Army. And, because military matters assumed an ever widening importance in Prussian and German governmental affairs, the General Staff, in dominating military policy, dominated national policy as well.

The acquisition of power by the General Staff was no sudden accomplishment. Rather, it was a slow and carefully calculated process. It was a process that included General Staff emancipation from ministerial control and the establishment of a firm General Staff control of the Army. Control of the Army gave the General Staff a base of power which it extended. Although, as Dr. Goerlitz points out, the General Staff was seeking "decisive influence" over the policy of the King in the immediate post-Napoleonic era, it was not until the latter 19th century that the General Staff, under the elder Von Moltke, had "full power of command," and Von Moltke, vested with authority to issue orders in the name of the King, had reduced the head of the state to a rubber-stamp role. This extension of General Staff power permitted the chief of the General Staff, Von Moltke (the younger), to exert increasing but inexpert influence on the diplomatic maneuvering that preceded World War I.

In the wartime atmosphere of continued crisis the General Staff, responding ever more readily to Ludendorff's guidance, expanded its authority over constantly wider areas of military and non-military affairs until, as Dr. Goerlitz points out, it was concerning itself with such matters as "the press, films, propaganda, armaments, and food." The result was that the "economic dictatorship carved out by the military was for all practical purposes a fact." Thus, Germany became the modern world's first example of the general staff state.

But, perhaps paradoxically, this possession of practically supreme authority by the military did not enhance German military effectiveness. In fact, the reverse was true.

The dangers of unbridled General Staff authority over even strictly military matters were demonstrated on many occasions. Dr. Goerlitz relates, for instance, the manner in which the General Staff functionary, Lt. Col. Hentsch, was able to bring about, by a combination of general staff status and lack of practical military thinking, the retreat of Von Kluck's army at the crucial stage of the Battle of the Marne. Also, the book relates how Ludendorff by-passed the nominal field commanders by excercising general staff command through subordinate chiefs of staff. These are but two examples of how an all-powerful general staff can, from the seclusion of its ivory tower, tamper at a distance with tactical operations.

The critical reader will not find in the book a clear-cut answer to the question of why the German General Staff system failed. Although the author does not provide the specific answer, he does give enough facts for the reader to arrive at his own conclusions. On the basis of such historical evidence, it appears that the German General Staff ultimately failed because it could not confine itself to the functions that were within its competence. Neither could it resist the temptation of greater authority both within and outside of the sphere of military affairs.

But while it was able to acquire constantly increasing power the General Staff could not prevent itself from producing those who exploited that power to the detriment of the General Staff and the state. Fortified by his prestige and authority as Chief of Staff, Waldersee was able to attack the Chancellor, Bismarck, openly before the Emperor. And then when the aging Bismarck was dismissed, Waldersee's choice was designated the new Chancellor.

Thus, by helping terminate Bismarck's "genuine political leadership," and by replacing him with the less able Caprivi, Waldersee and his General Staff played a key role in bringing on the diplomatic ineptness that set the stage for WW I and the disaster which accompanied it.

General Staff political adventuring did not stop with Waldersee. During the war years it was Ludendorff who really demonstrated how he and his General Staff could make and break governmental leaders. The Great General Staff by now had become more than an *imperium in imperio;* it had become superior to the official government.

The Treaty of Versailles outlawed the Great General Staff, but it did not eradicate it. Dr. Goerlitz describes in considerable detail how it survived by subterfuge through the post-WW I years until, in the middle 1930s, Adolf Hitler openly announced the re-establishment of the General Staff. In spite of its suspicion, and later hatred, of Hitler, the General Staff provided the professional military leadership that made possible Hitler's abortive and ruinous attempt at conquest.

There were generals such as Von Stauffenberg and Von Witzleben who opposed Hitler and his policies, and because of their opposition they were executed. Yet, the opposition of such patriots cannot exonerate the German General Staff for its role as Hitler's accomplice. The professional military knowledge of the General Staff was indispensable to Hitler and his plans for conquest. While many of the General Staff despised him, it continued, nevertheless, to serve him until Germany, Hitler, and the General Staff were all engulfed by the final disaster. Thus, by its initial aid to Hitler and its later refusal to reject him, the General Staff was finally and inextricably trapped in the net of its own making and was the victim of its own excesses and errors.

History of the German General Staff is recommended to military and civilian readers who are interested in studying military-civilian relationships in government. This book contains classic examples of what happens when military power is concentrated in a general staff and when a nation's military element is strong and its civilian authority is weak.—COLONEL J. D. HITTLE, *USMC*

THE AAF IN THE PACIFIC

THE ARMY AIR FORCES IN WORLD WAR II; Volume V, The Pacific—Matterhorn to Nagasaki (June 1944-August 1945). Edited by W. F. Craven and J. L. Cate. The University of Chicago Press. 1953. 878 Pages; $8.50.

This is the concluding volume in the official history series devoted to combat operations of the Army Air Forces in World War II. The authors and editors are to be

congratulated on the relatively early completion of this phase of their project. In the main their efforts have been distinguished by objectivity and the absence of service prejudice. Only here and there, when dealing with controversial subjects such as the Chennault-Stilwell affair, does what might be described as an "Air Force point of view" seem to appear. The willingness of the authors of this volume to write off an immense and costly project like the B-29 operations out of China (Matterhorn) as a comparative failure is not only refreshing but confidence-inspiring. So is their description of the gradual abandonment of the long-cherished Air Force doctrine of high-altitude precision bombing in favor of RAF-type night area bombing. General LeMay's low-altitude fire raids, which virtually sealed Japan's doom, sacrificed the Air Force's most violently-defended doctrinal concept. Only a strong and self-assured institution could carry out a reversal so complete and record it with so much self-satisfaction. One can only hope that other services which have dead horses of their own to bury will be inspired by this example!

A good deal of new material appears in this volume about United Nations operations in the China-India-Burma theater. Since it covers a period a little later than that of the recently-published army history volume, *Stilwell's Mission to China*, readers may be struck by the different way in which these two volumes interpret what happened in this theater. Stilwell was convinced that his principal mission was to train and re-form Chinese ground forces so that they could assist in United Nations operations on the Chinese mainland. His air force commander in China, General Claire Chennault, believed that this was not necessary. All that was required was to allocate Hump tonnage to the Fourteenth Air Force and it would "knock Japan out of the war." To this proposal Stilwell always replied that as soon as the Fourteenth Air Force began to hurt the Japs they would abandon their do-nothing policy in China (which Chennault and Chiang erroneously attributed to weakness) and would drive our Air Force out of its China bases.

In the present volume the historians have the drab task of relating how Stilwell's promises came true in 1944-45, as the Japanese ground forces overran all of Chennault's advanced bases. Then, too late to be effective, Chennault, who had spent two years trying to reduce the Hump tonnage allocated to Chinese ground force equipment and supplies, hastily changed his policy and advocated that more ground force material be sent to China. The authors, who show a great deal of shrewdness when dealing with Navy special pleading, pass over this remarkable "about face" on the part of Chennault without comment!

The authors attribute the success of the Japanese campaign against our air bases in China in 1944-45 to a failure in "morale" of the Chinese forces, rather than to want of training, equipment, and dependable leadership. They admit that the Fourteenth Air Force, despite its most gallant efforts, could not stimulate in Chiang's moth-eaten troops the kind of "morale" required to hold off the Japanese ground forces. Chennault's unhappy knack of ignoring logistical problems until they were beyond solution is minimized. His fierce demands for more planes and Hump tonnage and his sweeping promises in earlier days are not contrasted to the limited performance of his Air Force at the peak of its strength. Certainly the "stimulation of morale" in ground force troops as poorly led, supplied and equipped as those of Chiang was a novel function for air power. It would be simpler and more convincing to attribute the failure of Chinese ground forces to defend the air bases and railway routes lost in 1944-45 to the fact that they did not get the kind of training, equipment, and leadership that Stilwell vainly tried to give them from 1942 on.

To those readers interested in ground force problems, perhaps the most interesting and rewarding section of this book deals with the invasion and conquest of Leyte. The authors make a contribution to the history of this campaign by listing our mistakes in intelligence which contributed to the prolongation of the battle. Although the Southwest Pacific Headquarters, including the Fifth Air Force, accepted Admiral Halsey's optimistic estimate of the weakness of Japanese air power in the Philippines, they regarded the invasion of Leyte, without first securing fighter bases near enough to support the landing, as a gamble. Not only was Halsey's estimate wrong in the sense that the Japanese were able to reinforce their air units in the Philippines, but the assumption that Leyte was not garrisoned by Japanese troops was wrong. A veteran Japanese infantry division, the 16th, was waiting. All Fifth Air Force estimates about the speed at which airfields could be put into operation and the dates on which land-based aviation could take over from the carriers were wrong. The Japanese decision to resort to *kamikaze* attacks during the Philippines campaign made their air force more effective than the numbers would have indicated.

The section of the volume devoted to the XXI Bomber (B-29) Command contains a good deal of interesting information about the command problems of this force—based as it was on "Navy islands." If the XXI Bomber Command's hosts did not appreciate strategic air war, they did approve the long-range mining campaign carried out by the 313th Wing. It is worth noting that by April 1945 the B-29 supplanted the submarine as the chief killer of Japanese merchant ships.

The experience of the XXI Bomber Command in the fire raids on Japanese cities which began in March 1945 is told in great detail. General LeMay's decision to strip the big planes of most of their armament and to send them in at low altitudes with enlarged loads of incendiaries *at night* was one of the most courageous actions of the Pacific war. It demonstrated once again that surprise can still be attained by the resort to unorthodox methods. The authors are of the opinion that what compelled Japan to surrender without an invasion of the home islands was the combination of naval blockade and direct air attack on its major industrial centers. —D.V.

WHAT MAKES IT TICK?

MARCH OR DIE: The Story of the French Foreign Legion. By Howard Swiggett. G. P. Putnam's Sons. 239 Pages; Illustrated; $3.75.

Probably more guff has been written about the French Foreign Legion than any military unit since Gideon's chosen few. Mr. Swiggett attempts to get at the truth of the stories of this strange organization while telling enough of the unit's history to whet the appetite for more. Unfortunately the few Americans and British who wrote about the Legion were disgruntled deserters, or even worse, disgruntled individuals who were able to get out of the Legion with the help of their governments. The Legion is rather free to admit that the Englishmen and the Americans don't make good Legionnaires.

The author's conclusions indicate that the existence in the Legion just cannot be the life of filth and brutality that the Sunday supplements and the books would have us believe. There is discipline and plenty of it; the individual becomes a part of the organization and he learns or learns to learn. The Legionnaire doesn't fight for France but for the Legion; he cares not about war aims or right or justice. The Legion's mission is his mission. You can't talk patriotism to a man who, chances are, skipped from his own country a few jumps ahead of the police and enlisted in a foreign army under an assumed name. But these very men are willing to lay down their lives for the Legion with a willingness that makes patriotism seem a very pale thing indeed.

You can't get this sort of selflessness through brutality and ignorance. It is done by a course of indoctrination in the traditions of the Legion. It works, as is proved by the Legion's long history of never shirking a mission, and fighting to the last man in engagement after engagement. The man who lives to be discharged still retains his affection for the unit; witness the numbers who travel thousands of miles to attend Legion reunions at Sidi-bel-Abbès. Men who are ruled by fear don't charge into certain death for the glory of the Legion, neither do they organize clubs of Legion veterans in countries such as Germany, France's hereditary enemy.

How is it done? The author doesn't tell us exactly, because he doesn't know. But he does offer some hints. There is a

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museum, for instance, at Sidi-bel-Abbès, the Legion's home station, that is crammed with souvenirs of Legion actions. There is a newspaper, *Kepi Blanc,* that reminds the men of their great traditions. The noncoms, who work and act as noncoms, know the Legion's traditions and drill them into the recruits. Officers ordinarily have little contact with their men, but in battle they lead and take their losses. When the officers do talk to the men, they tell them such things as: "Bravery is not enough. Everyone is brave out here. This must be done *avec chic et avec gout.* You are *une troupe mysterieuse.*"

Legionnaires are of all types, but the proportion of highly educated men is rather high. George Fielding Eliot, in an article in the *Infantry Journal,* 1928, quoted in this book, indicates that most of the Legionnaires like soldiering, which might be one answer. Seven registered architects stepped forward from one company when a barracks was to be designed; men like these would not be in the Legion unless they wanted to be. Men like these cannot be overwhelmed into self-sacrifice by cheap emotional appeals—but there must be something. And it is doubtful that the "something" can be worked out in our own army as long as our regiments have numbers instead of names, and as long as our officers and enlisted men alike may be members of three or four numbered regiments in three years.—A.S.

SOLDIER OF GREAT PROFESSIONAL COMPETENCE

ALEXANDER OF TUNIS: A Biographical Portrait. By Norman Hillson. The British Book Center. 252 Pages; Index; Illustrated; $3.50.

Field Marshal Earl Alexander of Tunis, Britain's Minister of Defense, has so many titles and honors that it takes a full page of Mr. Hillson's book merely to list them. American professional military opinion rates him as one of the greatest soldiers of our time.

When General Eisenhower faced the problem of selecting the commander of the British forces for the Normandy invasion, he understood that either Alexander or Montgomery was available. "I expressed a preference for Alexander," he says in his *Crusade in Europe,* "primarily because I had been closely associated with him and had developed for him an admiration and friendship which has grown with the years. I regarded Alexander as Britain's outstanding soldier in the field of strategy."

General Bradley gives Alexander a similar rating: "By nature, a restrained, self-effacing, and punctilious soldier, Alexander was quite content to leave curtain calls to his subordinate commanders. As a consequence he was soon eclipsed in fame by the bereted figure of Bernard Montgomery. But while the latter had emerged as a symbol of Britain's comeback in the war, it was Alexander who carried the top rating among Allied professionals who knew them both."

The publishers say that this is the first book-length biography of Alexander. It is hardly satisfactory as an appraisal or even as a record of his military achievements, but it does establish the versatility, competence, friendliness, and courage of the man.

On the whole, though, American military readers will find much in this book to give them a broader picture of Alexander's qualities both as a soldier and as a statesman. Again it seems to be proved that men who do some things extremely well can do many things well.—MAJ. GEN. H. W. BLAKELEY.

BETTER THAN SPILLANE

THE SMOLDERING SEA. By U. S. Andersen. A. A. Wyn, Inc. 314 Pages; $3.50.

It is said that the principal criticism by a certain high-ranking naval officer of *The Caine Mutiny* was that he couldn't understand how one destroyer could collect aboard it in one cruise all the screwballs he had met in thirty years of naval service. My main criticism of *The Smoldering Sea* is somewhat the same—surely the law of averages would demand at least a proportion of normal people aboard a freighter.

The *Robin West* had a skipper who was a cashiered naval commander, and who was as crazy as any inmate of Washington's famed St. Elizabeth's. Doig, the first mate, was a sadist right out of the psychology books. Rizzio, a seaman, was a huge simian-appearing coward. Wilton, the chief engineer, was a pathological alcoholic. Mason, the steward, was a queer of the limp-wrist variety. And so it goes, with the only normal people aboard, the bos'n and the ensign in command of the armed guard.

Despite this unbelievable cast of characters, Mr. Andersen has written a very readable adventure story. The *Robin West* went to the Pacific in the early part of World War II, and what happened to her and her people offers the reader a breathless story of adventure. It isn't literature, but it's a welcome change of pace from detective stories or science fiction. It gets a bit gummy in spots, such as Doig using an axe to chop Wilton's body away from the steering engine, but darned if I don't prefer this charming little scene to some of Mickey Spillane's.—A.S.

AMPHIBIOUS COMMAND

GENERALS AND ADMIRALS. By Captain John Creswell, R.N. Longmans, Green and Company, Inc., 192 Pages; Maps; Index; $4.00.

Here is one of those rare pieces of military history in which the very real scholarship is kept firmly in the background where it does not interfere with the reading and enjoyment of the book.

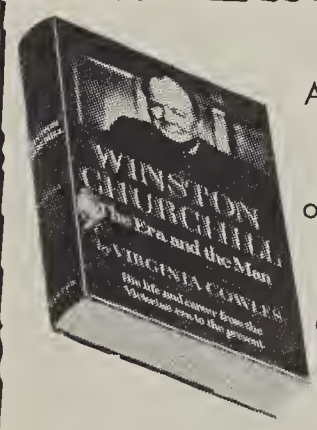
Captain Creswell gives us a brief, pungent history of amphibious command, chiefly in British joint operations from the late 16th Century to the end of World War II. This is a great deal of ground (or water) to cover in 192 pages, but Captain Creswell manages very well by sticking to his point and not wandering off into mazes of technical details of landing operations.

The purpose of the book, of course, is to illuminate from history the differences between two schools of thought on amphibious command—that which favors joint command and that which favors unified command. Beginning with Queen Anne's War, the author takes examples from many British amphibious operations, including those of the Seven Years War, the Scheldt Expedition of 1809, the ill-starred Dardanelles Campaign of 1915, the Narvik operations of 1940, the invasion of Europe in World War II and the amphibious war in the Pacific.

The general trend in these operations can be summed up in the author's words:

"But, for the main business, each service must be under its own chief. Any other system was inconceivable. At the end of the eighteenth century, and indeed for more than two hundred years afterwards, no forecast would have seemed more improbable than that the day would come when an admiral would reply to a general: 'Sir, His Majesty's Fleet is here to go wherever you may send it.' The height of fantasy would have been reached if it had been added that this would be said by a British Admiral of the Fleet to an American General [Eisenhower]."

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cases the joint command system will work better. He bases this conclusion on the premise that we may not always have a man of General Eisenhower's talents going for us as Supreme Commander—a point that has considerable merit.

However you may feel about the relative merits of joint and unified command, you cannot help but profit from reading this excellent little book. Its author brings his history vividly alive and writes with commendable objectivity. One reading is not going to make you an expert in amphibious war, but *Generals and Admirals* could very well be made required reading for future joint commanders and their staffs.—O.C.S.

HISTORY OF OUR ECONOMY

THE AMERICAN WAY. By Shepard B. Clough. Thomas Y. Crowell Co., New York. 1953. 246 Pages; Tables; Bibliography; Index; $4.00.

Many excellent books have recently analyzed the economic status of the United States, largely from the historical point of view. Some of the writers have been pessimists who have tempered their gloom about the future with the suggestion that all may not be lost even with the ending of the American frontier and the waste of our natural resources. The optimists have nevertheless felt they must warn against complacency and against the assumption that we have tamed the business cycle. Shepard B. Clough, a distinguished member of the Department of History at Columbia University, belongs to this group.

Professor Clough has specialized in American economic history and in the broader study of the influence of economic development on past and present civilizations. His lectures on American economic history at the Sorbonne, in Berlin, and at Italian universities, have been effective interpretations of the American way of life to these foreign audiences. His success as an ambassador of the American intellectuals has been noteworthy. This book is a measure of his achievement, for it is based on his lectures to foreign students about our economic life.

According to Professor Clough, there is reason to believe that economic well-being has been largely responsible for the flowering of civilization. So he regards the unique economic status of our country today as a forerunner of great accomplishments in the phases of what we call civilization. He finds that our economic growth has depended in large measure on the use we have made of our great natural resources, the wide distribution of purchasing power among most of our people, the research and development resulting in new products and new methods of production, and the use of standardization to reduce costs. Finally our organization of industry, financial establishments, and distribution methods have all contributed to the success of our system.

But our economy is not without serious threats to continued success. Our excessive, wasteful exploitation of resources will be costly in the future. The business cycle is undoubtedly the result of our own excesses, and these it ought to be possible for us to remedy, though the proof of that lies in the future. Nor have we solved our problems of management and labor which can still turn into costly strikes.

The American Way is a concise and instructive study of the principal aspects of our growth to our present economic stature. The chapters on industry, agriculture, transportation and trade, money and banking, and all the other elements of production and distribution are lucid and readable. There are useful notes, easily consulted tables and charts of economic data, and an excellent bibliography. The index is by no means exhaustive, but is reasonably satisfactory for the average reader. This book is useful as a closely but clearly reasoned, though not overly simplified, analysis of our American economy as it has evolved during the past century. —Brig. Gen. Donald Armstrong.

FIRST-RATE LONGSTREET

JAMES LONGSTREET. By D. B. Sanger and T. R. Hay. Louisiana State University Press, 1952. 460 pages; Maps; Illustrated; Index; $6.50.

James Longstreet has been bitterly criticized for his actions at Gettysburg—often blamed for Lee's defeat there. That Lee and the Confederate Government at the time did not share this view is evident from the fact that Longstreet continued to serve as commander of the First Corps, and was later given an important independent command. This biography, which finds him superior in battle leadership and appreciation of tactical values to both Lee and Jackson, is the joint work of two authors. The late Colonel Sanger writes of his military career and Mr. T. R. Hay describes his subsequent activities in politics and in the business of writing his memoirs.

The great value of Colonel Sanger's study of General Longstreet, the soldier, is his calmly judicious and objective attitude. When there are actions that merit adverse comment, Colonel Sanger is not inclined to whitewash his protagonist, whom he greatly admired. Colonel Sanger was a soldier himself, with an eye for terrain and tactics, and above all, with an understanding of logistical limitations. Too frequently the non-professional writer on military campaigns overlooks the facts of time and space, weather and supply, with consequent conclusions unfair to the military leaders whom they condemn.

When Colonel Sanger died in 1947, his narrative had reached Appomattox. Mr. Thomas R. Hay, an equally competent biographer in the field of Longstreet's civilian career, completes the life of this soldier turned politician and writer. It is interesting to note that in November 1865 Longstreet called on General Grant, who had been an old friend of his, first at West Point and later on in the Army. Grant wrote a most generous plea to the President for executive clemency, but President

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Johnson told Longstreet, "There are three persons of the South who can never receive amnesty: Mr. Davis, General Lee, and yourself. You have given the Union cause too much trouble." Later on, Longstreet was pardoned, and he then engaged, as a Republican, in a political career that was as controversial as many circumstances of his military career.

In spite of a few errors of fact, such as Colonel Sanger's reference to the distance from Chambersburg to Ewell's position between Carlisle and York, in the Gettysburg campaign, as 25 miles, when it was nearer 50 miles (page 163), and his statement that Heth "met the advanced units of O. O. Howard's 11th Corps" (page 166), instead of Reynolds' First Corps, this biography is a first-rate answer to much of the criticism levelled at General Longstreet. The book fills a need in providing an adequate full-length biography of one of Lee's most distinguished lieutenants.—Brig. Gen. Donald Armstrong.

AUSTRALIA'S WAR

TO BENGHAZI. By Gavin Long. Published by the Australian War Memorial; obtainable at Anglo Books, New York. 350 Pages; Index; Illustrated. 25/.

This volume of the official "Australia in the War of 1939-1945" series is the first of seven to cover the Army phase of Australian participation in World War II. It covers briefly the history of the Australian Army from 1919 to 1939, and then carries the story of the second Australian Imperial Force up to the end of the operations in Cyrenaica in early 1941.

The book is of interest to Americans on two counts. Military historians will be interested to compare the volume with the products of our Office of Military History, both as to quality and content, and also as to method as described by the author who is also General Editor of the entire Australian project. Army officers will find here a detailed account of the operations in the Middle East in 1940, a period which was overshadowed by later and more decisive operations.

There is a marked indication of a defensive attitude on the subject of the discipline of Australian troops in several places in this book and one footnote is perhaps worth quoting: "Pre-conceived convictions about the colonial were not confined to senior officers, and those young Australian officers who came closely into contact with British units were at first puzzled and later irritated by the coolness with which officers of some British regiments in Palestine received them. In an Australian mess it was considered obligatory to make a stranger feel at home, yet there appeared to them to be a tendency on the part of some British officers to seek in the newcomers some proof of their ready-made conviction that colonial officers were uncouth and their troops ill-disciplined. Longer acquaintance with British officers of this type showed that they were equally cool to their fellow officers who offended against their accepted ideas of deportment and dress."—Maj. Gen. H. W. Blakeley

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THE SKY AND THE SAILOR: A History of Celestial Navigation. By H. A. Calahan. Harper & Bros. 262 Pages; Illustrated; $4.00.

PRESCRIPTION FOR REBELLION. By Robert Lindner. Rinehart & Co., Inc. 305 Pages; $3.50. "Real interpretation of psychoanalysis, its new meanings for man, the system, and his freedom."

NAVAL TERMS DICTIONARY. By John V. Noel, Jr. D. Van Nostrand Company, Inc. 247 Pages; $4.50.

LINCOLN, A Picture Story of His Life. By Stefan Lorant. Harper & Brothers. 256 Pages; Illustrated; $6.00.

ALCOHOL EDUCATION: A Guidebook for Teachers. By Joseph Hirsh. Henry Schuman, Inc. 107 Pages; Index; $2.50.

WORDS AND PICTURES: An Introduction to Photojournalism. By Wilson Hicks. Harper & Brothers. 171 Pages; Illustrated; Index; $5.00.

THE POLICEMAN'S GUIDE: A Handbook of Study and Instruction. By Cornelius F. Cahalane. Harper & Brothers. 276 Pages; Index; $3.50.

ATLANTIC ALLIANCE: NATO's Role in the Free World. A Report by a Study Group of the Royal Institute of International Affairs. The Royal Institute of International Affairs. 172 Pages; $1.25. A British view of NATO.

QUEBEC IN YOUR CAR. By John and Marjorie Mackenzie. Rinehart & Co., Inc. 302 Pages; Illustrated; Index; $3.00.

FROM MAJOR JORDAN'S DIARIES. By George Racey Jordan with Richard L. Stokes. Harcourt, Brace and Company. 284 Pages; Index; $3.50. The story of our liaison officer with the Russians at Great Falls, Montana—his charges before a Congressional hearing created a great stir several years ago.

NOW IT CAN BE TOLD. By James Gleeson and Tom Waldron. Philosophical Library. 188 Pages; Illustrated; $3.75. Seven stories of World War II that have not had general circulation up to this time. One of the stories tells of General Clark's mission in North Africa. Originally published in England.

THE LOST DISCOVERY. By Frederick J. Pohl. W. W. Norton & Company, Inc. 346 Pages; Index; $3.75. "Uncovering the track of the Vikings in America."

THE UNITED STATES IN WORLD AFFAIRS 1951. By Richard P. Stebbins. Introduction by Henry M. Wriston. Harper & Brothers, for Council on Foreign Relations, Inc. 473 Pages; Index; $5.00. The sixth volume in the new postwar series of the Council on Foreign Relations' annual survey of American foreign policy.

INSIGHT INTO ASTRONOMY. By Leo Mattersdorf. Lantern Press, Inc. 223 Pages; Illustrated; $3.50.

LITTLE SHIP ASTRO-NAVIGATION. By Lt. Commdr. M. J. Rantzen, RNVR. Philosophical Library. 160 Pages; Illustrated; Index; $4.75.

THE KOREA STORY. By John C. Caldwell in collaboration with Lesley Frost. Henry Regnery Company. 180 Pages; Illustrated; Index; $3.00.

BILL MAULDIN IN KOREA. W. W. Norton & Co., Inc. 172 Pages; Illustrated; $2.95. Words and cartoons by a slightly more mature Mauldin who is now a war correspondent.

MAN'S MOST DANGEROUS MYTH: The Fallacy of Race. By M. F. Ashley Montagu. Harper & Brothers. 362 Pages; Index; $5.00. Third edition, revised and enlarged.

CRIME WITHOUT PUNISHMENT. By Guenther Reinhardt. Hermitage House, Inc. 322 Pages; Index; $3.50. A former FBI and CIC man reports on Soviet crimes in this country.

PORTRAIT OF AN ADMIRAL: The Life and Papers of Sir Herbert Richmond. By Arthur J. Marder. Harvard University Press. 407 Pages; Index; $6.00.

DENNIS THE MENACE. By Hank Ketcham. Henry Holt and Company. 64 Pages; Illustrated; $1.00. A book of cartoons about America's nastiest little brat.

REVOLUTION IN CHINA. By Charles Patrick Fitzgerald. Frederick A. Praeger, Inc. 290 Pages; Index; $4.50.

THE FRONTIERS. By John Strachey. Random House. 250 Pages; $3.00. Fiction; a British flyer shot down over occupied France attempts to evade capture by the Nazis and the French collaborators.

SHIRTSLEEVE ECONOMICS: A Commonsense Survey. By William A. Paton. Appleton-Century-Crofts, Inc. 460 Pages; $4.00. "A stirring defense of Free Enterprise and a Free America."

GUIDE TO GOOD HUNTING AND TRAPPING. By Joe Godfrey. Popular Mechanics Press. 160 Pages; Illustrated; $3.00.

SHRINES OF THE REPUBLIC: A Treasury of Fascinating Facts About the Nation's Capital. By Edward Boykin. Public Affairs Press. 76 Pages; $1.00. In question-and-answer form.

GOD'S UNDERGROUND IN ASIA. By Gretta Palmer. Appleton-Century-Crofts, Inc. 376 Pages; Index; $3.75. China's war against the church.

JAPAN PAST AND PRESENT, revised and enlarged. By Edwin O. Reischauer. Alfred A. Knopf, Inc. Maps; Index; $3.75. A short history.

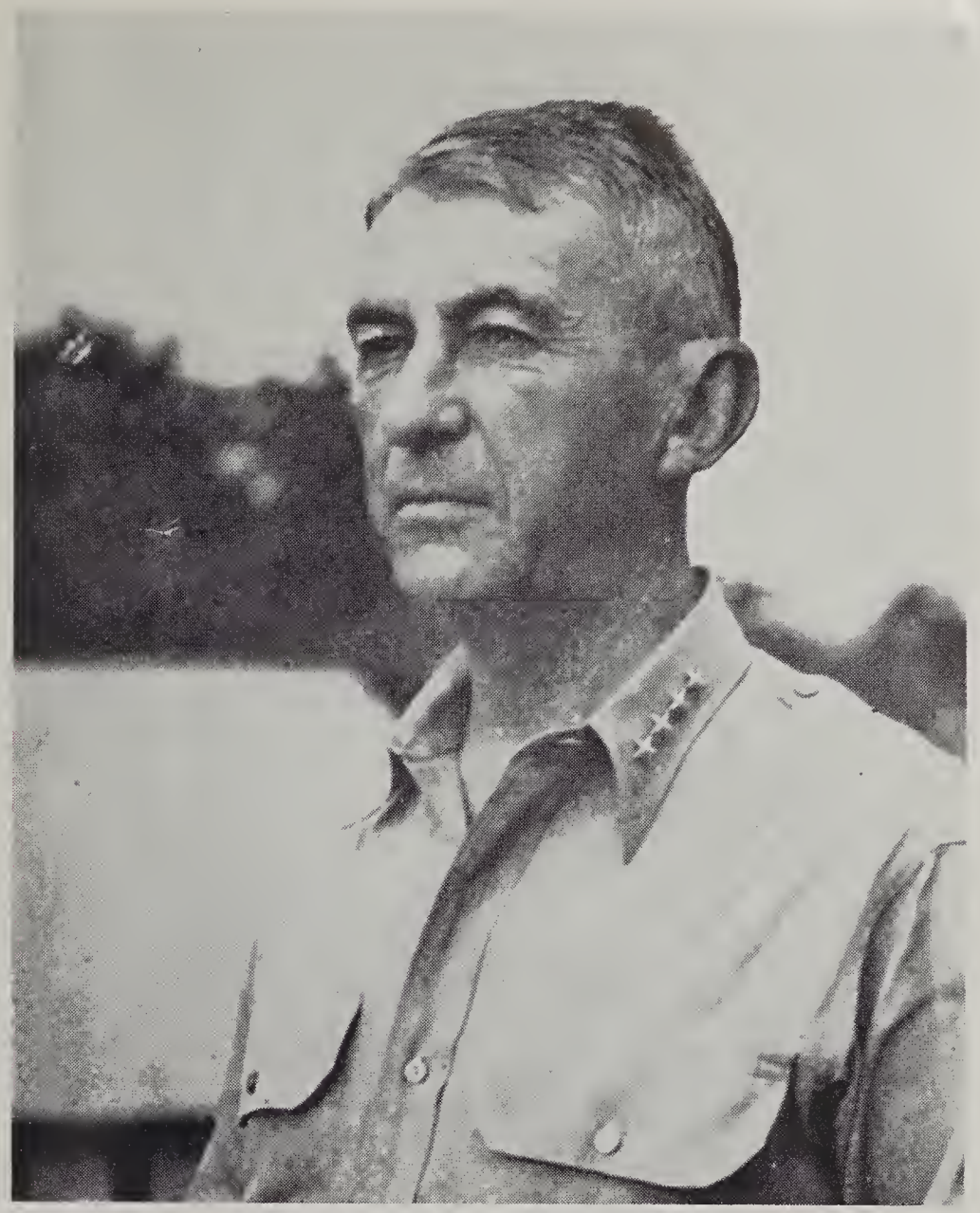
OUT OF STEP. By Joseph Trenaman. Philosophical Library. 223 Pages; Illustrated; Index; $4.75. A study of young delinquent British soldiers.

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